# Clinical Experiences *of an* Ayurveda Practitioner

**Prof. Muralidhara Sharma**
(Based on his lectures)

**Ayurveda Network**
Faculty of Ayurveda, Institute of Medical Sciences
Banaras Hindu University, Varanasi- INDIA

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# Contents

# Publisher's Note

The "Ayurveda Network" was established in 2018 within the Faculty of Ayurveda in the Institute of Medical Sciences, Banaras Hindu University, with the support of the Ministry of Education, Government of India. This initiative was originally conceived by Prof. Manoranjan Sahu, Dr. Kishor Patwardhan, Dr. Manoj Kumar and Dr. K. H. H. V. S. S. Narasimha Murthy. Prof. Manoranjan Sahu, *awarded Padma Shri by President of India*, put forward a proposal to create a network of Ayurveda experts aimed at developing teaching-learning materials in electronic form. The proposal was approved under the "Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching" (PMMMNMTT) of the Ministry of Education. To carry out and showcase our activities, we have created a dedicated web portal which can be accessed at ayurvedanetworkbhu.com.

After completing its first term, the Ministry of Ayush extended funding for the network under the "Ayurgyan" Central Sector Scheme of the Central Council of Research in Ayurvedic Sciences (CCRAS) for "Web-based (online) educational programs" from February 2022. This initiative is coordinated by Rashtriya Ayurveda Vidyapeeth, New Delhi.

The central objective of the Ayurveda Network is to develop e-content and resources tailored to Ayurvedic teachers and professionals by integrating knowledge from Ayurveda, Oriental sciences, and contemporary sciences. Our activities include a range of initiatives, such as developing and conducting video lectures, providing lecture notes and articles, creating comprehensive modules for video/text/questions and answers, compiling references, organizing webinar series and symposia, conducting workshops focused on academic writing and teaching-learning methods, maintaining a discussion forum, publishing e-books, and hosting presentations covering various topics.

As a component of our various activities, in 2019 and 2020, we conducted a series of Continuing Medical Education programs where Prof. Muralidhara Sharma shared his extensive clinical experience in the field of Ayurveda. These programs were held in Mangalore in collaboration with the Ayush Federation of India (Dakshina Kannada) and Ayurveda Network. The video recordings of this lecture series were very popular on our web-based platform. When the Covid-19 pandemic hit, we transitioned this series to a Facebook Live

format, which also garnered a lot of attention from teachers and students. Our coordination committee has therefore decided to convert this highly acclaimed lecture series into an e-book.

Accordingly, a proposal was sent to Prof. Sharma which he graciously accepted. Our Content Developer, Dr. Varsha More, then transcribed the lectures and formulated a preliminary draft. Recognizing the challenges associated with converting spoken discourses into written book chapters Dr. Shobha Bhat, Professor of Agada Tantra at BHU carefully reviewed and edited the manuscript. We thank her for her efforts, that allowed us to offer this e-book to our readers.

With this publication, we aim to share the wisdom and experiences Prof. Sharma has gained in the hope of inspiring and empowering others on their own journey to healing. Each chapter covers a specific aspect of Ayurvedic practice, ranging from understanding a person's constitution and importance of diet and lifestyle to the role of Ayurvedic interventions in the treatment of various clinical conditions. By this book, reader has the opportunity to delve into case studies, personal reflections, and practical aspects that provide insight into the Ayurvedic style of clinical practice. Each chapter is a testament to the author's dedication to his patients and his commitment to helping others achieve optimal health.

We are confident that this book will serve as a valuable resource for both Ayurvedic practitioners and those interested in holistic approaches to health and wellness. It is a testament to the enduring power of ancient wisdom to guide us toward greater balance, harmony, and vitality in our lives. We invite our readers to delve into the pages ahead and to embrace the transformative potential of Ayurveda with an open heart and mind. May this book spark inspiration and strength on your personal journey to optimal health and well-being.

We sincerely thank Dr. Ravishankar Pervaje (President, AFI, Puttur), Dr. Narayan Asra (President, AFI, Dakshina Kannada), Dr. Krishna M. Gokhale (President, AFI, Mangalore), and Dr. Iqbal (District Ayurveda Officer, Mangalore) for facilitating the lecture series in Mangalore and for collaborating with Ayurveda Network. Our thanks also go to Dr. Swati Sharma, Dr. Mrityunjay Dwivedi, Dr. Mayank Chauhan, and Dr. Divyani Soni for their invaluable contributions in preparing the first drafts of certain sections of the book. We

acknowledge the efforts of Dr. Remya A R, Dr. Kiran Gupta, Dr. Keerthana Prasannan, Dr. Vijina Ravindran, Saumya Tripathi, Sonali Singh, Srishti Gupta, Sana Tasmiah and Suhani Choudhury who helped us finalise the draft. We sincerely thank Mr. Anubhav Pandey for his technical expertise in hosting the webinar series, video editing, book design, and cover design. Furthermore, we would like to thank Mr. Sandeep Singh for his diligent management of office tasks and technical support in preparing the book.

Varanasi
31st December 2024

**Prof. Kishor Patwardhan**
*(Coordinator)*
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*(Co-coordinator)*

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*Faculty of Ayurveda,*
*Institute of Medical Sciences,*
*Banaras Hindu University, Varanasi*

# Editor’s Note

In this book titled, “Clinical experiences of an Ayurvedic Practitioner”, we are honoured to present the collective wisdom and rich clinical experiences of Prof. Muralidhar Sharma, a well-recognised teacher and practitioner in the field of Ayurveda. With a career spanning for about 3 decades, Prof. Sharma has not only mastered the Ayurvedic principles but has also refined the art of applying them in clinical settings with a deep understanding in contemporary clinical medicine as well. This book unveils the teachings and clinical experiences of Prof. Sharma, who stands as a beacon of inspiration, illuminating the path for countless students and practitioners. From unscrambling the essence of medicines used in different disease conditions to elucidating the profound impact of diet, lifestyle, and Ayurvedic interventions in addressing diverse clinical conditions, each chapter is a tapestry of profound knowledge and practical guidance. Within the pages of this book, Prof. Sharma's distinctive approach comes to life—a methodology characterized by precision, minimalism, and an unwavering commitment to patient-centered care. With each case study meticulously dissected, each ailment approached with judgment and insight, readers are offered a rare glimpse into the art of treating disease with a minimalist yet profoundly effective touch.

This work is a transcribed version of the lectures of Prof. Sharma that he delivered in a Continuing Medical Education program series, where he shared his extensive clinical experiences. In the pages of this book, we present a transformation of Prof. Sharma's enlightening lectures into a written format, capturing the essence of his insights and expertise. While the original talks thronged with Prof. Sharma's countless concerns and personal perspectives, I admit the limitations I faced in transforming such rich discourse into a condensed form. Several discussions have regrettably been omitted to ensure a crisp and focussed summary of the core themes. Furthermore, Prof. Sharma's lectures included an array of data, figures, and references supporting his arguments and observations. However, in adherence to copyright regulations and other considerations, we have refrained from reproducing these materials in their original form within the book. Instead, for the benefit of the readers, these cross-references have been included in the footnotes, directing them to the respective sources for further exploration where the readers can delve deeper into the referenced materials for a comprehensive understanding of the topics discussed.

In this work, Prof. Sharma has emphasized on understanding Ayurveda by incorporating the advances in contemporary biomedical sciences—a reflection of his comprehensive understanding of both systems and a testament to his holistic approach to healing. Throughout this work, Prof. Sharma's insights into the strengths and limitations of each medical paradigm shine through, offering practitioners a roadmap for navigating the complexities of patient care. Drawing upon his extensive knowledge of modern medicine, he adeptly delineates situations where Ayurveda offers a distinct advantage, as well as scenarios where a referral to western medicine experts may be necessary.

I consider myself extremely fortunate to have had the privilege of being a student of Professor Sharma. Professor Sharma's mentorship has been invaluable, instilling in all his students, a passion for learning and a drive for excellence that extends far beyond the classroom. I am deeply grateful for the profound impact he has had on shaping not just my academic pursuits, but also my personal growth and aspirations. Since my internship days back in 2002-2003, I envisioned to capture and document the extraordinary clinical experiences of Prof. Muralidhar Sharma. I am thankful to “Ayurveda Network” at BHU for having given me this opportunity. May this work serve as a beacon of inspiration for all who seek to walk the path of healing, and may it stand as a testament to the enduring legacy of Prof. Muralidhar Sharma—a teacher, mentor, and visionary whose influence will continue to illuminate the path for generations to come.

I am confident that this book will stand as an indispensable resource for aspiring Ayurvedic practitioners, offering them profound insights and invaluable guidance as they embark on their own journeys of healing and discovery.

31st December, 2024
Varanasi

**Prof. Shobha Bhat**
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# Author's Note

At the end of my graduate education in Ayurveda, I as well as most of my contemporaries felt directionless and confused about the career options. The role of a general medical practitioner for an Ayurvedic graduate seemed to be an essential but indecorous career model. The peer models were either too traditional swaying away from the advances of modern science or too modern, losing the identity of Ayurveda. Well-established and reputed Ayurvedic specialists seemed to be beyond the reach of the middle-class community due to the high-cost protocols.

When I started my teaching career in 1983 the critical need of demonstrating a model of Ayurvedic practice suitable for a general practitioner imbibing the advantages of scientific advances and core strength of Ayurvedic concepts at an economically viable form.

The highlights of the model are to ensure that the patient should get the best of the available care at an affordable cost. Limitations and potentials of Ayurvedic protocols vis-a-vis limitations and potentials of contemporary advances in medicine are the guidelines for finalising the therapeutic approach. Based on this principle many guidelines could be modified for the benefit of suffering humanity. I owe my success to my teachers and patients.

The social acceptance of this model is now proved. After my retirement from service many of my well-wishers and students were demanding for dissemination of the concepts of the model in a broader platform. I am grateful to Dr Ravishankar Pervaje and Dr Krishna Gokhale for their initiative to arrange a series of lectures on the topic. I am thankful to Dr Kishor Patwardhan for widening the access to these lectures through the Ayurveda Network platform. Ayurveda Network team is the sole proprietor of this venture of presenting the lectures in the form of e-book. I am overwhelmed by the efforts of the team led by Dr Kishor Patwardhan in making this possible.

At this context I express my heartfelt gratitude to all my teachers, students, well-wishers and my patients.

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# Abbreviations

1. A.H. Chi. - Ashtanga Hridaya, Chikitsa Sthana
2. A.H. Ni. - Ashtanga Hridaya, Nidana Sthana
3. A.H. Sha. - Ashtanga Hridaya, Sharira Sthana
4. A.H. Ut. - Ashtanga Hridaya, Uttara Tantra
5. A.S. Ni. - Ashtanga Sangraha, Nidana Sthana
6. A .S . Su. - Ashtanga Sangraha, Sutra Sthana
7. Ch. Chi. - Charaka Samhita, Chikitsa Sthana
8. Ch. Ni. - Charaka Samhita, Nidana Sthana
9. Ch. Si. - Charaka Samhita, Siddhi Sthana
10. Ch. Su. - Charaka Samhita, Sutra Sthana
11. Ch. Vi. - Charaka Samhita, Vimana Sthana
12. Su. Chi. - Sushruta Samhita, Chikitsa Sthana
13. Su. Ni. - Sushruta Samhita, Nidana Sthana
14. Su. Sha. - Sushruta Samhita, Sharira Sthana
15. Su. Su. - Sushruta Samhita, Sutra Sthana
16. Su. Ut. - Sushruta Samhita, Uttara Tantra

Chapter

1

# Essentials of Good Clinical Practice in Ayurveda

Ever since the dawn of human existence, there has been a continuous quest for methods to achieve a healthy and long life. Ayurveda, the science of life, has emerged as a comprehensive system of healthcare embodying a holistic approach to health and disease. Rooted in ancient wisdom, Ayurveda utilizes natural remedies derived from medicinal plants and minerals to treat a variety of ailments. It places a strong emphasis on self-discipline and simple living, underpinned by high human values. As a complete medical system, Ayurveda addresses multiple dimensions of health - physical, psychological, philosophical, ethical, and spiritual. Over millennia, it has adapted to evolving attitudes and the growing demand for health services, establishing itself as a potent and enduring system of medicine globally. Today, Ayurveda continues to be revered not only for its therapeutic effectiveness but also for its emphasis on promoting overall well-being and harmony between the body, mind and spirit.

However, the current state of Ayurveda education presents a significant challenge in producing competent Ayurveda medical practitioners. The existing system has not been entirely successful in providing students with a comprehensive understanding of the principles of Ayurveda practice. Consequently, many Ayurveda graduates lack the confidence needed to practice effectively. As a practitioner with over 30 years of experience in Ayurveda, I have developed insights that extend beyond traditional texts. This book is an effort to communicate that knowledge, sharing my clinical experiences and interpretations of Ayurveda concepts in practice. The intention is to help students gain confidence in practicing this ancient system of medicine

by bridging the gap between theoretical knowledge and clinical application. Through this work, I aim to contribute to the development of skilled and confident Ayurveda practitioners who can uphold and advance this holistic medical tradition.

One of the unique aspects of my practice is the use of a limited number of drugs. In Ayurveda education, students often encounter an extensive list of formulations, each accompanied by a long list of therapeutic utilities. This can ultimately lead to confusion about the selection and appropriate context for each medicine, a challenge that persists even as we embark on our careers as Ayurveda practitioners. Patients too often find themselves perplexed by the multitude of medicinal options available. With approximately 64,000 classical Yogas (formulations) and innumerable patent preparations produced by various pharmacies, the sheer volume can be overwhelming.

One significant drawback in practicing Ayurveda is the absence of clear-cut guidelines and well-defined shortlists. In my view, using a large number of medicines across numerous patients does not contribute to the development of "intuitive knowledge"—an understanding that transcends textbook learning. This type of knowledge is best gained by using a limited number of formulations extensively across a large patient-base. My approach in practice is rooted in this principle: fewer drugs for a greater number of people, allowing for an intuitive perception that goes beyond theoretical knowledge.

The selection of drugs in my practice is not arbitrary but based on economic considerations. My goal has always been to present an economically viable model to my patients. I dispense medicine at a cost of ten rupees per day, ensuring that a month's supply remains affordable at less than ten rupees per day. This approach aligns with the National Ayush Health Policy, which in 2016-17 published an essential drug list containing 274 medicines, 99% of which are classical formulations. It is possible that in the coming years, Ayurveda practitioners will be required to use a limited set of drugs. Given this potential shift, it is crucial to contemplate and prepare for such a possibility. Embracing a model of limited but effective pharmacological choices could, not only streamline practice but also enhance the quality of care and patient outcomes in Ayurveda.

A list of the formulations I prescribe in my clinical practice is provided below:

- Agnitundi Vati
- Anandabhairava Rasa
- Arogyavardhini Rasa
- Chandrakala Rasa
- Chandraprabha Vati
- Ekangaveera Rasa
- Gokshuradi Guggulu
- Kaishora Guggulu
- Gandhaka Rasayana
- Kanchanara Guggulu
- Kamadugha Rasa
- Kankayana Vati
- Lakshminarayana Rasa
- Mrityunjaya Rasa
- Shvasakuthara Rasa
- Tribhuvanakeerthi Rasa
- Triphala Guggulu
- Abhayarishta
- Amritarishta
- Balarishta
- Ashwagandharishta
- Chandanasava
- Jeerakadyarishta
- Khadirarishta
- Kumaryasava
- Manjishtadi Kwatha
- Mustakarishta
- Paripathadi Kadha
- Usheerasava
- Avipattikara Choorna
- Madhuyashti Choorna
- Pushyanuga Choorna
- Sitopaladi Choorna
- Dashanga lepa
- Makaradhwaja
- Abhraka Bhasma
- Tapyadi Loha
- Suvarnamalini vasantha
- Laghusoota mishrana
- Asanadi kwatha Choorna
- Triphala kwatha Choorna
- Krimi kaadha
- Somasava
- Bhoonimbadi kaadha
- Manasa (Patent formulation)
- Diabecon (Patent formulation)

The procedures that I recommend to my patients as per requirement, include:

- Agni chikitsa lepa[1]
- Matra basti
- Kshara basti
- Rajayapana basti
- Dashamoola niruha basti
- Pichcha basti
- Kati basti
- Taila/Takradhara
- Virechana
- Vamana

[1] *A treatment protocol developed in SDM College of Ayurveda, Udupi*

## A thorough clinical examination and diagnosis:

A thorough clinical examination is the most important and essential part in the diagnosis of a patient. A thorough knowledge of the contemporary system of medicine will help in proper examination and in turn in a perfect diagnosis. Up to a certain extent, my exposure to the contemporary system in terms of surgical practice has helped me to gain a hold on this area. There should be no compromise in the clinical examination of the patient.

## Investigations:

Investigations are performed only to confirm a clinical diagnosis, not for the purpose of conducting a general check-up. My practice does not involve opting for a wide range of investigations to identify findings. Instead, I recommend investigations only when there is a clinical indication. This approach is my perspective on advising investigations and is not intended to criticize the views of others.

It is common for 90% of the patients who visit me to bring extensive previous medical records. I do not review these records until I have personally examined the patient and formed my own perception of their condition. Only after making my assessment, I go through the files or previous records, and I may revise my opinion depending on the situation. This practice is an important aspect of clinical discipline. Without a clear perception of the disease, relying on another person's diagnosis makes practicing Ayurveda difficult. Unlike the contemporary system of medicine, also known as Evidence-Based Medicine (EBM), which follows specific guidelines similar to linear mathematical principles, Ayurveda requires an individualized assessment. In EBM, a doctor can depend on a previous diagnosis, but this approach is not feasible in Ayurvedic medicine. The practice of Ayurveda necessitates a personal and nuanced understanding of each patient's unique condition, which cannot be substituted by pre-existing records alone.

When it comes to a final selection of treatment it is based on Dosha assessment. All the investigations are necessary to predict the prognosis and to make your practice safe. One of the important questions is that, why do people prefer a particular physician? Even though there are hundreds of physicians, the patients prefer to go to one physician. This is a hugely debated issue and a lot of research work has been done throughout the globe in search of an answer. This question is pertinent not only for Ayurvedic practice, but for all systems of medicine. The conclusion seems to be that when a patient feels safe with a

particular physician, this becomes the ultimate driving force for the patient to seek that physician. Other factors are also present, but the most important is a feeling of safety. This feeling is possible when Ayurvedic practitioners have a clear understanding of the limitations of the contemporary system of medicine. My principle is to avoid harming the patient at any cost, simply because they have come to me for treatment. Therefore, whenever there is a better option in the contemporary system, I will refer the patient to that system. When it is not possible with our system to handle a clinical condition, we have to suggest the patient to go to the other system. The patient may go to the other system in other hospitals. Otherwise, I may admit the patient in our institute hospital to give any other modern medicines. But in my clinic, I don't give any allopathic prescriptions. It is one of the important clues that can make your practice successful.

**Key points**

- Investigations are done only to confirm the clinical diagnosis.
- Not to be carried away by the existing laboratory and other reports.
- Investigations to be interpreted from Ayurvedic point of view.
- Dosha assessment is the key to Ayurvedic regime.

In addition, you need to go for a thorough clinical examination and must have a thorough clinical perception. I would like to say that the Ayurveda practitioner/ Vaidya should be more advanced than a modern medicine doctor. We should be able to upgrade ourselves. We should be knowing the limitations as well as the strengths of the contemporary system of medicine (EBM) and only then, we can address the patient's needs judiciously. I do read to know about contemporary publications every day. Any of the guidelines released by the Food and Drug Administration (FDA), I will be knowing it within a week. I try to keep myself updated and that is one of the important strengths which keeps my practice safe for the patient. This is one of the absolute necessities.

## Pratishyaya

Let me discuss an example of common cold to highlight on the principles I have spoken about. The questions would be – 'How to do an assessment of a patient with common cold?', 'How the whole principle of the Dosha assessment is done?' and 'What are our limitations?'. Patients come with the usual history of the common cold, fever, and other associated complaints that may be categorized as Jwara and Pratishyaya. A very commonly seen condition is that

the patient may be somewhat uncomfortable but may not have much of nasal discharge. After looking at the nose, the presence of mild inflammation of the nasal mucosa may be seen. Most of the times it doesn't need any medicines. If you do not overload your body with food and much exercise, then it can be managed. But if you advise the patient not to take any medicine and have fast for one day or have food like *Ganji* (rice gruel) then it is not viable in clinical practise. The medicines I suggest would be Mrityunjaya Rasa, Arogyavardhini Rasa, and Amritarishta. This treatment may mimic the prescription of modern medicine that includes Paracetamol (acetaminophen) and Chlorpheniramine maleate.

It is the initial stages of Pratishyaya where discharge would not be too much, a patient would have a feeling of nasal bulging. A patient may feel that appreciation of smell has become problematic. These conditions are considered either Pratishyaya or Kaphaja Jwara. In both of these conditions duration of treatment is not much: a maximum of two days of prescription would be enough. These conditions can be managed with the above-prescribed medicines. Even without medication, we can manage it by simply using warm water or simple home remedies.

आनह्यते यस्य विधूप्यते च प्रक्लिद्यते शुष्यति चापि नासा ।
न वेत्ति यो गन्धरसांश्च जन्तुर्जुष्टं व्यवस्येत्तमपीनसेन ।।
तं चानिलश्लेष्मभवं विकारं ब्रूयात् प्रतिश्यायसमानलिङ्गम् । (Su.Ut 22/6,7)

## Kaphaja Jwara

गौरवं शीतमुत्क्लेशो रोमहर्षोऽतिनिद्रता ।
स्रोतोरोधो रुगल्पत्वं प्रसेको मधुरास्यता ।।
नात्युष्णगात्रता छर्दिरङ्गसादोऽविपाकता ।
प्रतिश्यायोऽरुचिः कासः कफजेऽक्ष्णोश्च शुक्लता ।। (Su. Ut 39/33,34)

**Treatment:**

Can be managed without specific medications. However, the following may be prescribed:

- Mrityunjaya Rasa 1BD
- Arogyavardhini Rasa 1BD
- Amritarishta 2 tsf BD
- Duration of Treatment: 2 days
- Dosha: Vata Kapha

# Rhinitis with post-nasal drip

## Pratishyaya - Upadrava

A patient may come with similar clinical symptoms as Pratishyaya but with more discharge and a tendency for occasional sneezing. In this condition the clinical examination is necessary. When the discharge is more, naturally the reflexes get pronounced to cause sneezing.

शिरोगुरुत्वं क्षवथोः प्रवर्तनं तथाऽङ्गमर्दः परिहृष्टरोमता ।
उपद्रवाश्चाप्यपरे पृथग्विधा नृणां प्रतिश्यायपुरःसराः स्मृताः ।। (Su. Ut. 24/ 5)

The symptoms like heaviness in head, sneezing, body ache are seen in Pitta Kaphaja Jvara also.

**Treatment:**

- Mrityunjaya Rasa 1BD
- Arogyavardhini Rasa 1 BD
- Amritarishta 2 tsf BD
- Duration of Treatment: 4 days
- Dosha:Pitta Kapha

In the nasal examination, a few clear fluid droplets would be present. This suggests about Dosha Samsarga, I will consider it as Pittakaphja Jvara. In this case, my prescription would be the same but I would advise the patient to take the medicines for four days along with dietary restrictions. In rare cases treatment period may extend up to seven days but not more than that. All types of junk foods need to be avoided. Most of the times, it is junk food that aggravates the problem.

## Kshavathu

The presence of thicker and more profuse discharge may be present when patients visit after two to three days. In some patients, these symptoms may be present from the beginning itself. Patients tend to have more persistent sneezing and the number of sneezes maybe 10, 20 or more in number. In these conditions, patient may get Vataja symptoms, many times Vatapittaja, or Vatakaphaja lakshana. Depending on the clinical presentation you have to use the medicine for a longer duration. If the patient is more febrile then I would prefer Mrityunjaya Rasa, Tribhuvanakeerthi Rasa, and Amritarishta. If the patient has comparatively a low-grade fever but more sneezing and nasal discharge, I would prefer Mrityunjaya Rasa, Laghu Sootashekhara Rasa, and Amritarishta.

The duration of treatment would be of two weeks, because in these conditions you won't expect the results in three or four days. If you advise the patient to continue these medicines for two weeks, definitely the patient will follow the treatment because at this stage, Paracetamol and Chlorpheniramine won't help at all. That's the limitation. Either patient would have already tried Paracetamol, Chlorpheniramine, or sometimes patients come in the beginning stages. An important point is to predict the duration of treatment and give the correct advice.

घ्राणाश्रिते मर्मणि सम्प्रदुष्टे यस्यानिलो नासिकया निरेति ।
कफानुयातो बहुशः सशब्दस्तं रोगमाहुः क्षवथुं विधिज्ञाः ।। (Su.Ut.22/11,12)

आनद्धा पिहिता नासा तनुस्रावप्रवर्तिनी ।
गलताल्वोष्ठशोषश्च निस्तोदः शङ्खयोस्तथा ।।
स्वरोपघातश्च भवेत् प्रतिश्यायेऽनिलात्मके । (Su.Ut.24/6,7)

**Treatment:**

- Mrityunjaya Rasa - 1BD
- Tribhuvanakeerthi Rasa -1BD

OR

- Laghu Sootashekhara Rasa- 1BD
- Amritarishta 2 tsf BD
- Duration of Treatment:2 weeks
- Dosha–Vata Kapha

## Chronic Rhinitis/Sinusitis:

Patients with chronic rhinitis or sinusitis who have already tried contemporary medicine but have not obtained satisfactory results often visit Ayurveda consultants. When the condition becomes more chronic, the patient would have thick and more discharges. You can see the discharge over the nasal area continuously and even there could be manifestations of systemic features. Patients may have reduced appetite, lethargy, or complication of the febrile condition. These are the patients where Ayurvedic treatment has an upper edge over contemporary medicine. Contemporary medicine prescription includes phenylephrine drops that give immediate relief but the congestion continues. With continuous use of phenylephrine, patients have relief for a transient period but in due course of time discharge becomes hard and consolidated. It is in this condition that the patients opt for Ayurvedic treatment. My prescription in such cases would be Mrityunjaya Rasa, Sootashekhara Rasa and Pippalyasava or

Somasava. I prefer Somasava when patients tend to have lower respiratory tract infections.

This is the stage where the Nasya would help. I always prefer Anutaila Nasya. Any other Nasya would help. The use of Nasya in the initial stages of fever aggravates the condition. I don't recommend Nasya in the initial stages but only when discharge tends to become thicker along with predominant symptoms of Pitta or Vata, when the colour of discharge becomes yellowish and thicker similar to the Ghrita, Nasya Karma is indicated. Most of the times patients may feel worse if Nasya is used in earlier stages.

> उष्णः सपीतकः स्रावो घ्राणात् स्रवति पैत्तिके ।।
> कृशोऽतिपाण्डुः सन्तप्तो भवत्तृष्णानि(भि)पीडितः ।
> सधूमं सहसा वह्निं वमतीव च मानवः ।। (Su. Ut. 24/ 7,8)

**Treatment:**

- Mrityunjaya Rasa 1BD
- Sootashekhara Rasa 1 BD
- Pippalyasava/Somasava 2 tsf BD
- Anutaila Nasya
- Duration of Treatment: 3 weeks
- Dosha–Pittavata, Tridosha

## Chronic Sinusitis–Bhramshathu

Frequent use of vasoconstrictor drops causes consolidation of discharge. This condition is described by Sushruta as Bhramshathu. In this condition, discharge is more, and patients may feel the salty taste of discharge in the throat. A patient gives a history of salty discharge which may be the post nasal drip causing irritation at that area. Patients may have pain in the sinuses, mostly in the frontal sinus and later in the maxillary sinus. Slight variations in the clinical presentation do occur. Some patients may present with pain in the maxillary sinus from the beginning itself. In this condition, secretion gets hardened and the duration of treatment has to be enhanced. I prefer the same prescription discussed earlier, for two months. At this stage, contemporary medicine does not help at all. Only potent analgesics such as Tramadol Hydrochloride may help in relieving symptoms. A patient would not be able to continue with this treatment and many a times, patients shift to Ayurveda for treatment. Particularly those who have used antibiotics in the beginning, reach this stage quite early. In viral condition antibiotic should not be prescribed in the initial period, however, quite often, antibiotics are prescribed in the early stages.

Plenty of patients of this category visit Ayurveda practitioners because of such unethical practice.

**Treatment**

- Mrityunjaya Rasa 1BD
- Sootashekhara Rasa 1 BD
- Pippalyasava/Somasava 2 tsf BD
- Anutaila Nasya
- Duration of Treatment: 8 weeks
- Dosha–Kapha Pitta, Tridosha

प्रभ्रश्यते नासिकयैव यश्च सान्द्रो विदग्धो लवणः कफस्तु ।।
प्राक् सञ्चितो मूर्धनि पित्ततप्तस्तं भ्रंशथुं व्याधिमुदाहरन्ति । (Su. Ut 22/13,14)

## Allergic Rhinitis:

भूत्वा भूत्वा प्रतिश्यायो योऽकस्माद्विनिवर्तते ।।
सम्पक्वो वाऽप्यपक्वो वा स सर्वप्रभवः स्मृतः ।
लिङ्गानि चैव सर्वेषां पीनसानां च सर्वजे ।। (Su.Ut 24/10,11)

When condition becomes more chronic and patients have persistent symptoms, presentation is similar to that of allergic rhinitis. Acharya Sushruta has described three different types of clinical presentations. The first type of presentation includes recurrent episodes of the nasal discharge. Patients may have episodes of respiratory infection for a few days, relief with usual treatment, and episodes tend to repeat frequently. As the condition progresses the interval between episodes gets shorter. The duration of episodes continues to increase.

कफः कफकृते घ्राणाच्छुक्लः शीतः स्रवेन्मुहुः ।
शुक्लावभासः शूनाक्षो भवेदुरुशिरोमुखः ।।
शिरोगलौष्ठतालूनां कण्डूयनमतीव च । (Su.Ut. 24/9,10)

The second type of presentation includes systemic involvement in the form of itching and rashes seen over the body. You may also get severe nasal congestion.

अजस्रमच्छं सलिलप्रकाशं यस्याविवर्णं स्रवतीह नासा ।।
रात्रौ विशेषेण हि तं विकारं नासापरिस्रावमिति व्यवस्येत् । (Su.Ut. 22/16,17)

The third type of presentation includes persistent continuous discharge, where a patient would be using two or three handkerchiefs as an essential part of routine life. Patients may present with any of the three conditions. Acharya Sushruta has identified these three conditions separately. In contemporary

medicine, anti-allergic and membrane stabilizing drugs are used instead of chlorpheniramine maleate. Turbinate hypertrophy with congestion is one of the important criteria. It may tend to develop a polyp but does not establish a polyp.

My choice of drugs would be Mrityunjaya Rasa, Laghu Sootashekhara Amritarishta, and Anutaila Nasya. There could be some patients who are resistant to usual medical treatment. You may require procedures like Virechana or Vamana in certain patients or may need prolonged treatment for years with Haridrakhanda, and Chyavanaprasha to prevent a recurrence. In case of severe nasal congestion with distress, I prefer Makaradhwaja as the second-line treatment. I do prefer mixing Makaradhwaja 1 gm/week with 25 gm Laghu Sootashekhara Rasa. Prolonged treatment along with dietary restriction is necessary.

**Treatment:**

- Mrityunjaya Rasa 1BD
- Laghu Sootashekhara Rasa 1BD
- Amritarishta 4tsf BD
- Anutaila Nasya
- Duration of Treatment: 3 months

**Specific management**

- Tridoshaja – Virechana /Vamana
- Kaphaja – Haridrakhanda, Chyavanaprasha
- Nasaparisrava -Makaradhwaja 1gm/week with 25gm Laghu Sootashekhara Rasa

## Raktaja Pratishyaya:

There could be a simple common cold that immediately tends to bleed. Haemorrhagic rhinitis is the term that I use here, which is not a standard term. In contemporary medicine, it is simply mentioned as one of the complications of rhinitis rather than as a special category. Patients may appear with clinical presentation of haemorrhage. I consider this condition as where bleeding is one of the features. My prescription would be Sootashekhara Rasa, Kamadugha Rasa, Draksharishta / Usheerasava, and Anutaila Nasya. This is one of the areas where we can have definite change. Anutaila Nasya has to be used only after the bleeding has stopped. Usually, the bleeding subsides within 2-3 days of starting

the treatment. Anutaila Nasya can be used for a prolonged period and it prevents complications definitely.

रक्तजे तु प्रतिश्याये रक्तास्रावः प्रवर्तते ।
ताम्राक्षश्च भवेज्जन्तुरुरोघातप्रपीडितः ।।
दुर्गन्धोच्छ्वासवदनस्तथा गन्धान्न वेत्ति च ।
मूर्च्छन्ति चात्र कृमयः श्वेताः स्निग्धास्तथाऽणवः ।।
कृमिमूर्धविकारेण समानं चास्य लक्षणम् । (Su.Ut 24/12,13,14)

**Treatment**

- Sootashekhara Rasa 1 BD
- Kamadugha Rasa [Plain]1BD
- Draksharishta / Usheerasava 2tsf BD
- Anutaila Nasya
- Duration of Treatment: 3 weeks

## Atrophic Rhinitis:

If the condition remains persistent for a prolonged duration and patient visits physician at a later point in time, then it may result in atrophic changes. This is one of the areas where there is a severe limitation and prognosis is poor. Neither Ayurvedic system nor allopathic system gives satisfactory relief but still patients may continue with Ayurvedic management. Some of the patients may continue their management for one or two months and then go to another doctor. So, they will be having experience with many doctors and they tend to be eternal patients. Usually when a patient of an atrophic rhinitis comes to me, I send the patient to the ENT Specialist. While dealing with atrophic rhinitis patients your communication ability to convince the patient is one issue and your management is another issue. Virechana is one of the procedures which can often produce a significant change. It could be a chance factor sometimes. Many times, repeated Virechana produces significant results. Acharya Sushruta has very clearly mentioned changes that could be observed in atrophic rhinitis while explaining 'Dushtapratishyaya' or 'Aanah' and also mentioned about poor prognosis.

प्रक्लिद्यतिपुनर्नासा पुनश्च परिशुष्यति ।।
मुहुरानह्यते चापि मुहुर्विव्रियते तथा ।
निःश्वासोच्छ्वासदौर्गन्ध्यं तथा गन्धान्न वेत्ति च ।।
एवं दुष्टप्रतिश्यायं जानीयात् कृच्छ्रसाधनम् । (Su. Ut 24/14.15,16)

**Treatment would include following Ayurvedic medication:**

- Mritytunjaya Rasa

- Sootashekhara Rasa
- Godanti Bhasma+Avipattikara Choorna
- Virechana

## Nasal Polyp:

Patient having allergic tendency may end up either with atrophic changes or with the polyp formation. When polyp formation occurs, we consider it as Tridoshaja variety or Nasarsha where a typical standard polyp would be visible, shapes of the polyp could be any, it could be a non-pedunculated bulging or pedunculated hanging sort of bulging.

> दोषैस्त्रिभिस्तैः पृथगेकशश्च ब्रूयात्तथाऽर्शांसि तथैव शोफान्।।
> शालाक्यसिद्धान्तमवेक्ष्य चापि सर्वात्मकं सप्तममर्बुदं तु। (Su.Ut. 22/18.19)

When a polyp develops after middle age or above 40 years age, it needs to have surgical exploration in the form of biopsy. Chances of having a malignant growth are higher. Most of the times malignancy cannot be predicted simply by visual perception. Usually, we have some conventional perception regarding malignancy, like surface is usually fragile and so on. But the actual presentation may be quite misleading. Therefore, it is always safer to have investigations to confirmation whether patient is having tumour pathology or not. If it is malignant growth then our treatment would not be helpful as it is considered to be incurable (Asadhya). If the patient comes to us at terminal stage, then approach to the management will be different. If you have a proven case of non-malignant condition then Mrityunjaya Rasa, Triphala Guggulu, Amritarishta, Anutaila Nasya may help to the patient. In case of children, chances of malignancy are rare but in case of elderly patient, it is better to rule out malignancy.

> कफावृतो वायुरुदानसञ्ज्ञो यदा स्वमार्गे विगुणः स्थितः स्यात्।।
> घ्राणं वृणोतीव तदा स रोगो नासाप्रतीनाह इति प्रदिष्टः । (Su. Ut 22/15,16)

**Treatment would include following medications:**

- Mrityunjaya Rasa
- Triphala Guggulu
- Amritarishta
- Anutaila Nasya
- Dosha – Tridoshaja, Yapya
- Mostly palliative management
- Surgical intervention to rule out tumours

## Vata Kapahaja Jwara– tendency to involve lower respiratory tract: Bronchitis?

We shall now discuss a few points on Jwara to have a clear picture. One of the common conditions presenting as Jwara would be where the patient continues to have fever without a significant amount of nasal discharge. However, patient tends to develop lower respiratory tract involvement within a day or shorter duration. On the first day patient may have some feeling like cold. Second day patient may have pain in throat. Next day patient may have cough and wheezing and so on. In such condition I would start combination of Laghu Sootashekhara Rasa and Talisadi Choorna in the beginning itself so that next complications can be prevented. This presentation is similar to symptoms explained under Vatakaphaja Jwara. In case of Vatakaphaja Jwara patient may have more severe systemic symptoms like joint pain, lethargy and cough developed within a day. Use of antibiotics is found quite frequently in these types of patients. Many a times patients may have some other systemic factors which make them susceptible for virulent infection. In that patient, it could be safer to start with Laghusoota Mishrana in the beginning itself, before the patient develops symptoms. In that condition instead of Amritarishta I would prefer Pippalyasava / Kumaryasava that would have more Paachana affect to help in resolution of cough.

स्तैमित्यं पर्वणां भेदो निद्रा गौरवमेव च।।
शिरोग्रहः प्रतिश्यायः कासः स्वेदप्रवर्तनम्।
सन्तापो मध्यवेगश्च वातश्लेष्मज्वराकृतिः।। (Su. Ut 39/48,49)

**Treatment would include following medications:**

- Mrityunjaya Rasa
- Tribhuvanakeerthi Rasa
- Laghusoota Mishrana
- Pippalyasava / Kumaryasava

# Septic and atrophic changes: Nasapaka

Severe atrophic or septic changes in nasal mucosa could be complications of chronic rhinitis or sinusitis. In such conditions, nasal examination reveals lots of pus-like discharge and hardened calcification. This condition has been described by Acharya Sushruta as Nasapaka where typical pus formation occurs and the patient would have tenderness and visible swelling. According to Acharya Sushruta, Nasapaka is an incurable condition. Most of the time it would be gram-positive infection and the use of antibiotics would be necessary

for this condition. You can prescribe suitable antibiotics for gram-positive infection or you can refer the patient. Simply managing alone with Ayurveda treatment may not be possible because Acharya Sushruta described this condition as incurable. If any condition described in Samhita as incurable then I consider that as a limitation for Ayurvedic treatment. The number of patients suffering from this condition is lesser. My advice would be to refer a patient to the specialists in contemporary medicine.

घ्राणाश्रितं पित्तमरूंषि कुर्याद्यस्मिन् विकारे बलवांश्च पाकः ।
तं नासिकापाकमिति व्यवस्येद्विक्लेदकोथावपि यत्र दृष्टौ । (Su. Ut 22/8,9)

## Rhinitis with purulent discharge- Pootinasa

दोषैर्विदग्धैर्गलतालुमूले संवासितो यस्य समीरणस्तु ।।
निरेति पूतिर्मुखनासिकाभ्यां तं पूतिनासं प्रवदन्ति रोगम् । (Su. Ut 22/7,8)

Tridoshaja, Yapya or Asadhya condition.

**Treatment**

A course of antibiotics is necessary. Surgical exploration may be needed.

## Pittaja Jwara

वेगस्तीक्ष्णोऽतिसारश्च निद्राल्पत्वं तथा वमिः ।
कण्ठौष्ठमुखनासानां पाकः स्वेदश्च जायते ।।
प्रलापः कटुता वक्त्रे मूर्च्छा दाहो मदस्तृषा ।
पीतविण्मूत्रनेत्रत्वं पैत्तिके भ्रम एव च ।। (Su. Ut 39/31,32)

In Pittaja Jwara patient may have yellowish discolouration of skin. I would consider viral hepatitis as Pittaja Jwara. If liver function tests are suggestive of obstructive pathology, then it is another limitation for Ayurveda treatment. In non-obstructive condition even if bilirubin level is raised and at the same time transaminase levels are also raised (AST>1000 units/L) then Ayurveda treatment would definitely help. If AST levels are lower (say, up to 200 – 300 units/L) and bilirubin level tends to rise then one should be cautious as prognosis would be poor. Either refer the patient to someone else or go for further level of investigation as simple liver function test would not be enough. You have to identify the cause of obstruction and treatment would be more specific. In such a case, my treatment would be Mrityunjaya Rasa, Arogyavardhini Rasa, Kumaryasava. If it is viral hepatitis, we can manage the patient with Ayurveda treatment as long as patient does not exhibit altered sensorium or signs of cerebral irritation. It is advisable to do serum electrolytes if patient has severe

vomiting. It is not possible to manage patient with Ayurveda treatment alone if there is electrolyte imbalance. Electrolyte replacement may be needed. Therefore, it is better to admit the patient and keep under observation. OPD level treatment may be risky because changes occur very rapidly. A patient who seems to be healthy now may become very sick in just a few hours, and hence, it is better to keep patient under observation till the febrile condition is over. A simple casual regular practice may not be possible in this situation, but we can manage with Ayurvedic treatment alone. We have to give importance to investigations and investigations may have to be repeatedly seen and followed up. Depending upon patient's status, supplementation of electrolytes and Vitamin K may be required.

**Investigations:** Haemogram, Liver function tests.

**Treatment:**

- Mrityunjaya Rasa
- Arogyavardhini Rasa
- Kumaryasava

## Vataja Jwara:

वेपथुर्विषमो वेगः कण्ठौष्ठपरिशोषणम्।
निद्रानाशः क्षुतः स्तम्भो गात्राणां रौक्ष्यमेव च।।
शिरोहृद्वात्ररुग्वक्त्रवैरस्यं बद्धविट्कता।
जृम्भाऽऽध्मानं तथा शूलं भवत्यनिलजे ज्वरे।। (Su.Ut.39/29,30)

Vataja Jwara is a condition where we can have better management than contemporary medicine. Contemporary medicine often fails to resolve these conditions quickly. But I consider this as one of the varieties of the Vishama Jwara. The typical feature associated with Vataja Jwara is irregular (Vishama) onset itself. An obvious clinical symptom of the pain (Shoola) is present (e.g., polyarthralgia). In this condition, my prescription would be Lakshminarayana Rasa (instead of Mrityunjaya Rasa), Arogyavardhini Rasa and Amritarishta. The other restrictions like rest and diet are very vital. Duration cannot be specified; it could be 1-2 weeks or at times it may be enhanced up to a month. Responses may not be uniform but still you can manage the patient safely. Chikungunya-like conditions where you have typical Vataja Jwara can be better managed with Ayurvedic medicine than the contemporary system of medicine. Investigations are necessary for such conditions.

**Investigations:** Haemogram, Peripheral smear study

**Treatment:**

- Lakshminarayana Rasa
- Arogyavardhini Rasa
- Amritarishta

## Gastritis /Food poisoning

तृष्णा मूर्च्छा भ्रमो दाहः स्वप्ननाशः शिरोरुजा।
कण्ठास्यदशोषो वमथू रोमहर्षोऽरुचिस्तथा।।
पर्वभेदश्च जृम्भा च वातपित्तज्वराकृतिः। (Su.Ut.39/47,48)

Another variant of the Jwara mentioned in the Sushruta Samhita is of the patients who develop food poisoning after having some fast food like pizza, ice cream, and so on. Patients often have the symptoms of gastric irritation and nausea. The patient may come to you with symptoms of Jwara and Ajeerna. My prescription would be Mrityunjaya Rasa, Anandabhairava Rasa, Mustakarishta / Jeerakadyarishta. If the patient has frequent loose stools, then the choice would be Mustakarishta. Jeerakadyarishta would be chosen when abdominal distension is more.

**Treatment:**

- Mrityunjaya Rasa
- Anandabhairava Rasa
- Mustakarishta /Jeerakadyarishta

# Exanthematous Fever

रक्तनिष्ठीवनं दाहः स्वेदश्छर्दनविभ्रमौ।
प्रलापः पिटिका तृष्णा रक्तप्राप्ते ज्वरे नृणाम्।। (Su.Ut.39/84)

Another variant is exanthematous fever, i.e., conditions like chickenpox. Chickenpox is one of the areas where Ayurvedic treatment has a better edge over the contemporary system. Common man would prefer Ayurvedic treatment by choice and they may not go to the other system. In all such conditions, there is always a potential risk of sudden development of changes like meningeal irritation. Therefore, be careful about these signs. We can manage this condition as Pittaja or Raktaja Jwara provided that care has been taken related to the signs of meningeal irritation and dietary restrictions have been followed. My prescription would be Paripathadi Kadha and Kamadugha Rasa. [It is not Parpata because Parpata found in our area is different. It doesn't have a bitter

taste and other differences could also be present. The textual word is Parpata but I use Paripatha and it is original Marathi term used in Maharashtra.]

**Treatment:**

- Mrityunjaya Rasa
- Kamadugha Rasa
- Paripathadi Kadha

## Asadhya Lakshanas (Toxaemia)

Asadhya lakshanas are the limitations of Ayurvedic management.

निद्रानाशो भ्रमः श्वासस्तन्द्रा सुप्ताङ्गताऽरुचिः ।
तृष्णा मोहो मदः स्तम्भो दाहः शीतं हृदि व्यथा ।।
पक्तिश्चिरेण दोषाणामुन्मादः श्यावदन्तता ।
रसना परुषा कृष्णा सन्धिमूर्धास्थिजा रुजः ।।
निर्भुग्ने कलुषे नेत्रे कर्णौ शब्दरुगन्वितौ ।
प्रलापः स्रोतसां पाकः कूजनं चेतनाच्युतिः ।।
स्वेदमूत्रपुरीषाणामल्पशः सुचिरात् स्रुतिः ।
नात्युष्णशीतोऽल्पसञ्ज्ञो भ्रान्तप्रेक्षी हतस्वरः ।
खरजिह्वः शुष्ककण्ठः स्वेदविण्मूत्रवर्जितः ।।
सास्रो निर्भुग्नहृदयो भक्तद्वेषी हतप्रभः ।
श्वसन्निपतितः शेते प्रलापोपद्रवायुतः ।।
तमभिन्यासमित्याहुर्हतौजसमथापरे । (Su. Ut 39/35-41)

**a. Toxaemic condition:**

In case of any disease, when the Asadhya lakshana as described in the Samhitas are present, then it is indicative of limitation for Ayurvedic treatment. I have tried to list those Asadhya Lakshanas in the text which we can see in the clinical practice presenting with febrile conditions. One of them is toxaemia where patients present with severe toxaemic condition and have fever. If patients have a total leukocyte count more than 17,000/ µL then it is a limitation for Ayurvedic treatment. It cannot be managed irrespective of the source of infection and need to have antibiotic therapy at that level. Any sort of infection may be managed if total leucocyte count is less than 17,000/ µL. But if the total leucocyte count is more than 17,000/ µL, I consider it a limitation.

**b. Meningeal signs:**

In every patient with fever, it is important to rule out signs of meningeal irritation. If the patient has meningeal signs and convulsions then it is suggestive of Asadhya lakashana, and also a limitation for Ayurveda treatment.

ओजो विस्रंसते यस्य पित्तानिलसमुच्छ्रयात् ।
स गात्रस्तम्भशीताभ्यां शयनेष्सुरचेतनः ।।
अपि जाग्रत् स्वपन् जन्तुस्तन्द्रालुश्च प्रलापवान् ।
संहृष्टरोमा स्रस्ताङ्गो मन्दसन्तापवेदनः ।।
ओजोनिरोधजं तस्य जानीयात् कुशलो भिषक् । (Su. Ut 39/43,44,45)

**c. Febrile convulsion**

A febrile convulsion is a condition where it is difficult to manage the patient during a convulsive phase and it may not be possible to manage with Ayurvedic treatment. If body temperature rises above 103° F, it is a limitation for Ayurvedic treatment where the use of some kind of antipyretic drug is needed to reduce the temperature. It may not be possible with simple conventional practice and may need further investigations. It has to be considered as Asadhya Lakshana or considered a red alert where you have to be careful to assess and proceed cautiously. If a patient has the tendency of febrile convulsion, then to prevent febrile convulsion my prescription would be Avipattikara Choorna. The use of Saraswatarishta for a prolonged period prevents the next episode of convulsion. The use of Medhya Aushadhi definitely helps in the prevention of the next episode of convulsion.

**d. Poor general condition**

Pralepaka Jwara is considered a poor general condition.

तथा प्रलेपको ज्ञयः शोषिणां प्राणनाशनः ।
दुश्चिकित्स्यतमो मन्दः सुकष्टो धातुशोषकृत् ।। (Su. Ut 39/54)

**e. WBC Count – Less than 3,000/ µL or more than 17,000 / µL**

If a patient has a total leukocyte count of less than 3,000/ µL or more than 17,000 / µL then both the conditions I would consider impossible to be managed with the Ayurvedic management or you need to have a more detailed approach. Causes could be many and you need to go into the specific cause. You may have some window of opportunity for management with Ayurvedic medicines but I would consider that as a caution sign.

**f. Platelet count –Less than 60,000/ µL**

A platelet counts of less than 60,000/ µL is to be considered as one of the danger signs and limitations for Ayurveda management. In such conditions platelet transfusion is necessary. Without that, you may risk the life of the patient.

**g. Widal positive at dilution of 1:160**

In cases of typhoid, the early stages can be managed with Laxminarayan Rasa. But if Widal test is positive in more than 1:160 dilution, I would consider it a limitation for Ayurvedic treatment. All these points should be considered for the selective choice of the patient.

**h. Deviated Nasal Septum and other anatomical deformities**

In case of anatomical deformities like deviated nasal septum or fully grown adenoids, it is almost not possible to have satisfactory results with Ayurvedic treatment even though symptoms are milder. Even in the contemporary system of medicine, the outcome will be poor. Ayurvedic treatment or allopathic treatment provides almost similar results and both cannot establish a cure. So palliative treatment is possible but not curative one. Most of those anatomical defects may be managed with surgical treatment better than our palliative treatment. So, the decision of whether the surgery is needed or not needs more expertise and skills.

## Investigations to plan the Ayurvedic approach to treatment:

Investigations are done not only for making the present diagnosis of disease but also to help in managing the condition with the help of Ayurvedic treatment. Here, I explain a few examples of patients with low back ache. Clinical symptoms in patients might be similar, but radiological findings can help differentiate the underlying causes. In one patient, radiological imaging might show degenerative changes, which could indicate conditions like osteoarthritis or chronic wear and tear. In another patient, the imaging might reveal inflammatory changes, which can be identified by white sclerotic marks, suggesting conditions such as osteitis or an active inflammatory process.

> वायोर्धातुक्षयात् कोपो मार्गस्यावरणेन च (वा)।
> वातपित्तकफा देहे सर्वस्रोतोऽनुसारिणः।। (Ch. Chi 28/59)

Dhatukshaya and Margavarodha can be ruled out with help of radiological investigation. Dhatukshaya can be correlated with degenerative pathology. My treatment of choice would be as follows:

**Prescription in a Dhatukshayajanya Vatavyadhi (Degenerative changes):**

- Chandraprabha Vati 1 tds
- Ekangaveera Rasa 1tds
- Abhraka Bhasma

- Tapyadi Loha
- Godanti Bhasma
- Avipattikara Choorna
- Rajayapana Basti

**In case of inflammatory pathology:**
Most of the times uric acid levels may be higher or some other signs of inflammatory pathology may be evident. Most orthopaedics don't give importance to elevated uric acid levels. But when you deal with patients, you will have plenty of patients who have elevated uric acid levels and involvement in the joint. My prescription would be Kaishora Guggulu, Mrityunjaya Rasa, and Amritarishta. If necessary Agnichiktsa and Kshara Basti may be necessary. In cases of a Dhatukshayajany Vatavyadhi I prefer Rajayapana Basti. A principle of Brimhana and Karshana can be selected on the basis of radiological signs even.

- Serum uric acid 7.8 mg/dL = Samsrushta vata

Treatment:

- Kaishora Guggulu
- Mrityunjaya Rasa
- Amritarishta

**Intervention:**

- Agni chikitsa
- Kshara Basti

## Spondylitis

Kevala Vata, A clinical condition associated with postural changes:
In majority of patients with low back pain, the major clinical sign would be muscle spasm and patients may not have a gross structural pathology. In such conditions, Kati Basti or Sthanika Snehana would be useful and it helps in the resolution of spasm.

**Treatment:**

- Gokshuradi Guggulu
- Vishamushti Vati
- Godanti Bhasma
- Avipattikara Choorna
- Kati Basti
- Dashamoola Niruha basti

रूक्षाय बहुवाताय स्नेहबस्तिं दिने दिने ।
दद्याद्वैद्यस्ततोऽन्येषामग्न्याबाधभयात्त्यहात् ।। (Su.Chi 37/79)

स्नेहोऽल्पमात्रो रूक्षाणां दीर्घकालमनत्ययः ।
तथा निरूहः स्निग्धानामल्पमात्रः प्रशस्यते ।। (Su.Chi 37/80)

## Experiences with the prescription of Rasaushadhi based on Dosha:

Why consider Dosha while prescribing Rasaushadhi? There is a general notion that Rasaushadhi when prescribed, there is no need to bother about the Doshas but I don't agree with it. I say Rasaushadhi also have to be selected based upon the Dosha principle, which can be assessed based on the ingredients. I can explain it with three formulations like Tribhuvanakeerthi Rasa, Mrityunjaya Rasa, and Anandabhairava Rasa. All these formulations contain Rasaushadhi like Hingula, Kajjali, and some Kashtha Aushadhi (herbs). Kashtha Aushadhi present within Tribhuvanakeerthi Rasa possesses Jwarghana property while they carry Pachana property with Anand Bhairav Rasa. These specific properties like Jwarghana and Pachana are based on the herbal contents of that particular formulation. Doshaghnata of this kind of formulation can be decided after knowing the exact composition. One of my students beautifully compiled all my prescriptions along with their contents and Doshaghnata. I would like to clarify that the prescription of Rasaushadhi based on Doshaghnata is my perception. Rasaushadhi can be prescribed safely for prolonged durations. One of the general notions is that Rasaushadhi are harmful and cannot be prescribed for a longer duration. Rasaushadhi being harmful is a myth or ghost. Well-prepared Rasaushadhi with their proper use can be used for a long duration. I have had a patient using Rasaushadhi for more than 35 years. Still, she is my patient. When I joined the institution in 1983, she came with septic arthritis complications and we have managed her. From that day onwards till now she has not taken any medicine from any other doctor. In my absence, even if someone else prescribed some medicines, she didn't take them. She has not developed any complications. Many so-called complications produced with the use of Rasaushadhi can be managed with Rasaushadhi themselves. I have observed that contemporary physicians mention the history of intake of Ayurvedic medicine like 'once in a lifetime' or 'throughout life' in the case sheets of renal pathology patients. I have also seen one of the urologists prescribing the drug K4 which is an Ayurvedic medicine that contains Rasaushadhi. So, the myth about Rasaushadhi being harmful is not true. But standard techniques followed during preparation of these formulations are crucial and they need to be followed strictly. There is no need to get educated by others as methods to

prevent harmful effects associated with Rasaushadhi have been already mentioned in Ayurveda texts. Also, methods of converting harmful drugs into safe drugs have been mentioned in the texts and the necessary point is to follow them.

**Key points:**

- Quality of preparation is to be ensured.
- 'Chemically pure' and 'Shuddha Dravya' are not the same.

आयुर्वेदोपदेशेषु विधेयः परमादरः । (A. H. Su.1/2)

It has been mentioned by Acharya Vagbhata to keep trust over the guidelines described in Samhitas. Because you have come to the Ayurveda stream, you have to develop faith in it. It is safe to use Rasaushadhi. So absolutely there is no need of questioning it. Most of the times the questions are raised by Ayurvedic doctors themselves. When questions are raised by Ayurvedic doctors naturally others will magnify them. As far as safety aspects related to Rasaushadhi are concerned I have a definite answer in the form of my clinical experience. So, I'm quite confident about the safety of Rasaushadhi.

## The clinical decision of deciding about withdrawal of existing treatment:

When treating patients who are already on contemporary medical treatments, deciding whether to withdraw certain medications is crucial. This decision requires a thorough understanding of contemporary pharmacology and its limitations. Without this knowledge, stopping certain essential medications can be harmful. Ayurvedic practitioners often see patients who have consulted multiple specialists and are on common prescriptions such as multivitamins, H2 receptor blockers, analgesics, proton pump inhibitors, vitamins, calcium supplements, and sometimes sedatives. In such cases, it is often beneficial to discontinue non-essential medications. This approach can provide significant relief, with patients often experiencing up to 50% improvement in their condition. However, it is important to be selective and knowledgeable when discontinuing medications. Essential drugs, such as antihypertensives, antidiabetics, hormones, hormone supplements, and certain psychoactive drugs, cannot be stopped abruptly. These require careful assessment and may need to be tapered based on the patient's response. In contrast, medications like vitamin supplements, certain antidepressants, and analgesics can often be stopped, leading to relief from symptoms and reduced distress. The key is to have the expertise to make these decisions appropriately.

**Key points**

- Anti-Hypertensive, anti-Diabetics, hormone supplements, and psychoactive therapies should not be withdrawn suddenly.
- Withdrawal or tapering the doses of these drugs is a very critical issue requiring thorough and regular clinical follow-up.
- Vitamin supplements, antidepressants, and analgesics can be stopped unless there is a real indication.
- Most of the times regulation of the medication itself can produce huge relief. A higher dose does not mean more relief.

Some practitioners believe that giving more drugs in higher doses leads to better outcomes. However, the principle 'अधिकस्य अधिकं फलं' (more is better) is misinterpreted in this context. It actually refers to the idea that more processing (Mardana) of a substance yields greater benefits, not that higher doses of medication are better. In fact, lower doses often provide more benefit. In my clinic, I prescribe two tablets per day, whereas in the hospital, I prescribe three tablets per day. Over the years, I have observed that my clinic patients are more comfortable with the lower dose. Despite this, I continue the higher dose in the hospital to gather more evidence. A perfect practitioner would ideally prescribe only one drug. Prescribing multiple drugs suggests an imperfection in treatment. My prescriptions are usually limited to three drugs, which I believe is better than prescribing five, ten, or more drugs. My goal is not to criticize others but to emphasize the importance of minimizing medication. While I am not perfect, as I still use two or three drugs, I aim to move towards a more refined practice where one drug suffices for one patient at a time. This improvement comes with clinical experience.

**Key points**

- The clinical utility of medicine is not dependent on quantity.
- The right prescription in the right context makes a real impact.
- Ghrita and Tailas used for prolonged duration fail to produce clinical benefits.

## Basic perceptions

All the principles discussed can be summarized into ten basic principles. One important observation is that patients who are accustomed to Ayurvedic medicines tend to respond better. Initially, such patients might need four days of medication for certain conditions, but over time, a single dose becomes sufficient. For example, for common cold and fever, I prescribe Mrityunjaya

Rasa, Arogyavardhini Rasa, and Amritarishta for four days. Patients often find that after initial relief, they can use a single dose of the remaining medicine for similar complaints over the next six months, returning only when all doses are used up. This is a significant advantage of Ayurvedic medicine that patients recognize on their own.

Another area of my practice is the minimal use of Anupana (the vehicle or medium through which medicine is administered). While Anupana has its role, I prioritize making therapy convenient for patients and have found that not focusing on it does not significantly affect outcomes in my practice.

## Summarizing the ten basic principles essential in Clinical Practice:

1. A thorough clinical examination and diagnosis is the first step.
2. Investigations are done only to confirm the clinical diagnosis or decide about the Ayurvedic course of treatment.
3. Dosha assessment is the key to prescription.
4. Rasaushadhi are prescribed based on the Dosha constitution.
5. Rasaushadhi can be prescribed safely for prolonged durations.
6. Asadhya Lakshana is the limitation for Ayurvedic management.
7. The clinical decision of deciding about withdrawal of existing treatment is the key.
8. A higher dose does not mean more relief.
9. Patients conditioned to Ayurvedic medicines respond better.
10. Anupana is definitely helpful but not mandatory.

Chapter

2

# Diseases of the Respiratory System

Here are my clinical experiences with various diseases encountered in practice. This is not an exhaustive list, but rather a selection of significant and important conditions. These examples provide insights into how to approach and manage different types of diseases effectively.

## Tonsillitis:

This is a commonly encountered and troublesome condition, often considered a surgical issue. While surgeries are frequently performed, they are not always necessary. Most cases can be effectively managed without surgery through thorough clinical assessment. Brodsky's classification for grading tonsillitis, based on its diameter, is a useful tool in these evaluations.

**Brodsky's classification**[1]

| Tonsils Blockage | The ratio of Tonsils in the Oropharynx |
|---|---|
| Degree 0 | Tonsils in the Fossa |
| Degree 1 | Tonsils occupy less than 25% of the Oropharynx |
| Degree 2 | Tonsils occupy from 25 to 50% of the Oropharynx |
| Degree 3 | Tonsils occupy 50 to75% of the Oropharynx |
| Degree 4 | Tonsils occupy more than 75% of the Oropharynx |

*1 Ng SK, Lee DLY, Li AM, Wing YK, Tong MCF. Reproducibility of Clinical Grading of TonsillarSize. Arch Otolaryngol Head Neck Surg. 2010;136 (2):159–162. doi:10.1001/archoto.2009.170*

When the tonsils enlarge to occupy 75% or more of the oropharynx, they are classified as degree 4. In this severe condition, the airway is blocked, leaving no space for air to pass through. Non-surgical interventions are ineffective in such cases, making surgery an absolute necessity regardless of the medical system used. According to contemporary surgical norms, even degree 3 tonsillitis, characterized by more than 50% enlargement, often indicates surgery. However, degree 3 can sometimes be managed with Ayurvedic medicine instead of surgical removal.

Acharya Sushruta identified four distinct types of throat swellings, each with a specific name: Kantashundi, Tundekeri, Adhrusha, and Kacchapa. The Kacchapa condition, comparable to grade 4 in Brodsky's classification, is characterized by a large, incurable (Asadhya) swelling. The other forms of tonsillitis should be treated as Kapha Raktaja or Kapha Pittaja Vyadhi, following Ayurvedic principles.

> श्लेष्मासृग्भ्यां तालुमूलात् प्रवृद्धो दीर्घः शोफो ध्मातबस्तिप्रकाशः ।
> तृष्णाकासश्वासकृत् सम्प्रदिष्टो व्याधिर्वैद्यैः कण्ठशुण्डीति नाम्ना ।।
> शोफः स्थूलस्तोददाहप्रपाकी प्रागुक्ताभ्यां तुण्डिकेरी मता तु ।
> शोफः स्तब्धो लोहितस्तालुदेशे रक्ताज्ज्ञेयः सोऽध्रुषो रुग्ज्वराढ्यः ।।
> (Su. Ni. 16/41,42)

In chronic tonsillitis, a patient may experience recurrent episodes of fever and mild throat pain without respiratory distress. These symptoms can be effectively managed with Ayurvedic treatments such as Mrityunjaya Rasa, Triphala Guggulu, and Amritarishta. However, the treatment duration may need to be extended. Despite the recurring symptoms, chronic tonsillitis is not considered a critical condition.

The long-term benefits of tonsillectomy are highly controversial, with contemporary surgeons holding different opinions on the matter. Some believe that tonsillectomy is beneficial for patients, while others argue that it is not. Tonsils act as "policemen" or "gatekeepers" of the respiratory tract, helping to protect it by minimizing infections from entering the lower respiratory tract. Consequently, the incidence of lower respiratory tract infections may increase

after tonsillectomy. The protocol suggested for acute management of tonsillitis is Centor criteria.[1]

This is the universal guideline. Here I have done a few modifications to this guideline.

## Centor criteria

Centor criteria are considered for the assessment of tonsillitis and its scoring.

- If body temperature > 38o C- Score 1
- The presence of a cough suggests the involvement of the trachea. The absence of a cough is a positive sign of tonsillitis -Score 1
- Visible anterior swollen tonsils-Score 1
- The presence of exudate -watery discharge- Score 1
- If the total score is <3 then contemporary medicine suggests symptomatic treatment and no need for antibiotics, can be manged with symptomatic treatment.
- When modified Centor criteria is < 3 or modified Centor criteria > 3 and total leucocyte count is less than 16000 / µL, following drugs are included in the treatment:

**Treatment:**

- Mrityunjaya Rasa,
- Amritarishta
- For more discharge –Gandhaka Rasayana
- For lesser discharge with only swelling –Triphala Guggulu

In patients with a long history of recurrent tonsillitis, managed with Mrityunjaya Rasa or Triphala Guggulu, the interval between episodes usually increases over time, leading to symptom-free periods. Often, the swelling may persist but does not require surgical intervention. My treatment preferences vary depending on the symptoms: for cases with more discharge, I recommend Gandhaka Rasayana, while for those with less discharge and only swelling, I prefer Triphala Guggulu.

One of the significant risks of tonsillitis is the development of rheumatism, which patients frequently experience as a consequence. Therefore, my

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*[1] Centor RM; Witherspoon JM; Dalton HP; Brody CE; Link K (1981). "The diagnosis of strep throat in adults in the emergency room". Medical Decision Making. 1 (3): 239–246. doi:10.1177/0272989x8100100304. PMID 6763125.*

guideline during practice is as follows: if the patient remains febrile and the score is more than three, I will definitely conduct a total leukocyte count. If the patient has been febrile for a week or more and the tonsils are enlarged, I will also perform an ASO titer test. If the ASO titer is negative and the total leukocyte count is less than 16,000/µL, we can manage the condition with Ayurvedic medicines such as Mrityunjaya Rasa, Triphala Guggulu, or Gandhaka Rasayana. The same treatment would be enough. However, if the total leukocyte count exceeds 16,000/µL, the ASO titer is positive, and the patient exhibits tachycardia, I generally do not continue with Ayurvedic treatments. In such cases, I recommend the use of antibiotics, either prescribed by me or by referring the patient to another specialist. Antibiotic use may be necessary. In my practice, I admit the patient to our hospital and administer penicillin derivatives. This represents a limit for Ayurvedic treatment, as continuing with it in the presence of tachycardia and a positive ASO titer may not be ethically justified due to the risk of progressive cardiac pathology.

For patients treated with antibiotics for acute tonsillitis, there is no need for prophylactic antibiotics. The contemporary practice of administering long-acting penicillin once every three to four weeks for life is unnecessary. Such patients can be effectively managed with Ayurvedic drugs like Mrityunjaya Rasa and Triphala Guggulu, preventing potential cardiac complications. However, in acute stages where the patient is febrile and the total leukocyte count is high, Ayurvedic treatment may not be sufficient.

In cases of bacterial tonsillitis, it is essential to follow the Centor criteria and consider the ASO titer when making treatment decisions, taking into account the severity and grading of the condition.

**Rheumatic signs:**

- Joint pain
- Fleeting pain
- Tachycardia
- Murmur
- Chorea

## Viral tonsillitis:

Not every patient with throat swelling and pain has tonsillitis. This is a common mistake. In our area, most cases are viral tonsillitis, not bacterial. Distinguishing

between viral and bacterial tonsillitis is a crucial skill in practice, and even many contemporary medicine practitioners may fail to make this distinction.

Identifying viral tonsillitis is straightforward. Upon examining the throat, you'll notice generalized inflammation without distinct borders, a reddish hue, minimal exudates, and a smooth surface. Fever, if present, tends to be moderate rather than high. Patients typically experience nasal discharge and a cough. In viral tonsillitis, it is not just the tonsils but also adjacent areas like the uvula that are inflamed, presenting as a reddish hue across the entire area. Unlike bacterial tonsillitis, viral cases are generally self-limiting and simpler to manage, requiring less concern about complications.

Viral tonsillitis is often triggered by consuming cold substances after meals, with ice cream being a common cause. Contemporary medicine acknowledges that sudden temperature changes can compromise the body's protective barrier, leading to inflammation. However, this knowledge is not typically applied in daily life. People usually eat ice cream right after meals, which is safer in cold seasons when the external temperature is also low. Conversely, consuming ice cream in hot weather can invite pathology due to the significant temperature gradient. In hot climates, people tend to prefer cold drinks, but I recommend opting for warm drinks instead. Trying this will reveal its benefits. Experiment with eating ice cream in winter and drinking warm beverages in summer to notice the difference. These observations are not well-documented in textbooks.

Managing viral tonsillitis is straightforward. The same treatments used for other common upper respiratory disorders, such as Mrityunjaya Rasa and Triphala Guggulu, can be applied. It is also true that viral tonsillitis will typically subside on its own within one or two weeks, provided the patient avoids further irritants and maintains a healthy lifestyle. However, this approach may not be effective for bacterial tonsillitis.

**Viral**

- Seasonal
- Smooth surface
- Nasal discharge
- Moderate fever
- Cough
- Uvulitis
- Total leucocyte counts within normal limits

**Treatment:**

- Mrityunjaya Rasa

- Arogyavardhini Rasa
- Amritarishta

## Bacterial tonsillitis:

Bacterial tonsillitis can be easily identified by its distinct swelling with well-defined borders and a characteristically rough surface. The uvula is typically not involved, and the absence of a cough is an important clinical sign. Many clinicians fail to recognize these differences. High fever and palpable lymph nodes are characteristic features of bacterial tonsillitis. In bacterial tonsillitis, the size, scaling, and grading of the swelling must be considered. In acute conditions, decisions should be based on the Centor criteria and the ASO titer, as previously discussed.

**Key points:**

- Contamination
- Limited area
- Rough surface
- Pus
- High fever
- Enlarged lymph nodes
- Total leucocyte count raised
- ASO titer

**Treatment:**

- Mrityunjaya Rasa
- Triphala Guggulu
- Gandhaka Rasayana
- Triphala gargling

**Complications:**

The incidence of complications from tonsillitis is generally low but can be more common in children. A particularly important concern is unilateral tonsillitis, where only one tonsil is affected. This condition, especially in children under five, can lead to significant complications, such as a tonsillar abscess. Therefore, it is crucial to be vigilant. While it is not incurable, unilateral tonsillitis can cause acute complications that may escalate quickly. Deciding whether to continue with Ayurvedic treatment, switch to antibiotics, or consult a surgeon depends on the patient's condition. Unilateral tonsillitis is always a warning sign, whereas bilateral tonsillitis is comparatively safer. treatment or have an opinion of the surgeon depends upon the patient's condition. Unilateral tonsillitis is always a red sign while bilateral tonsillitis is comparatively safer.

One condition that can lead to serious complications is peritonsillar abscess. Clinically, especially in children, signs such as neck rigidity and visible external swelling indicate a critical situation that requires immediate attention. Interestingly, the incurable (Asadhya) condition 'Balaasa' described by Acharya Sushruta shares the same description as peritonsillar abscess.

गले तु शोफं कुरुतः प्रवृद्धौ श्लेष्मानिलौ श्वासरुजोपपन्नम् ।
मर्मच्छिदं दुस्तरमेतदाहुर्बलाससंज्ञं निपुणा विकारम् ।। (Su.Ni.16/54)

Patients may occasionally exhibit obvious rheumatic signs, though the incidence is rare. Rheumatic signs are more common in patients of upper socio-economic class, while patients from lower socio-economic class are less likely to display these symptoms. In my experience, individuals from upper socio-economic class may have a lower incidence of tonsillitis overall, but they are more prone to complications from rheumatism. Therefore, it is crucial to be vigilant for rheumatic signs, particularly tachycardia, which is a warning signal.

During the acute phase of rheumatism, managing the condition with Ayurvedic medicines alone may not be feasible. However, once the acute phase subsides or if chronic rheumatism develops, Ayurvedic treatment can be effective. In the acute phase of rheumatism, a course of antibiotics is always preferable.

**Rheumatic signs**

- Joint pain
- Fleeting pain
- Tachycardia
- Murmur
- Chorea

## Conditions confused with tonsillitis:

The incidence of herpetic tonsillitis is not very high, but it can still occur and should be recognized. This condition is characterized by small eruptions throughout the oral cavity, not just the tonsillar area, and can also appear on the oral mucosa. Patients typically complain of throat pain, with similar symptoms to tonsillitis, and may also have a fever. My treatment for herpetic tonsillitis includes Kamadugha Rasa and Paripathadi Kadha. It is important to be aware that not every patient with throat pain and swelling has tonsillitis, as conditions like herpetic tonsillitis may also be present.

**Oral candidiasis:**
Candidiasis is another common condition seen in immunocompromised and diabetic patients. In particular, diabetic patients with throat pain should be examined cautiously for candidiasis, which presents with thick, yellowish exudates. This condition is typically chronic and resistant to treatment. Often, there is an underlying pathology that must be prioritized for management.

Oral candidiasis can be an early indicator of diabetes. In some cases, candidiasis has led to the diagnosis of undiagnosed leukemia, where other clinical symptoms were misleading. Therefore, candidiasis should not be considered a simple condition and warrants a detailed workup to identify any underlying causes. Once the underlying cause is identified, treatment should be tailored to address it.

In conjunction with managing the underlying pathology, I recommend using Gandhaka Rasayana, Khadhirarishta, and Triphala gargles. Triphala gargles, in particular, can be very beneficial.

In patients undergoing chemotherapy or radiation, candidiasis is a common complication. The use of additional antibiotics or antifungal drugs often leads to further complications. In such cases, Triphala Kwatha gargling alone can be significantly effective. For patients undergoing chemotherapy, we can recommend this approach confidently. While we do not intervene with the chemotherapy itself or prescribe any internal medicine, Triphala Kwatha gagling alone can significantly alleviate symptoms.

Although tonsillar carcinoma is rare, it can still occur. Therefore, it is important to remember that not every swollen tonsil indicates tonsillitis.

**Treatment:**

- Kamadugha Rasa
- Paripathadi kadha
- Gandhaka Rasayana
- Khadirarishta
- Triphala gargling

## Laryngitis

When transitioning from tonsillitis, the next area of clinical presentation is laryngitis. Laryngitis is identified by a dry cough and hoarseness of the voice. The characteristic hoarseness is a typical feature, and fever is usually low-grade.

Swaraha, as described by Acharya Vagbhata, precisely captures this condition, where "Hataswara" or altered voice quality is a prominent feature.

श्लेष्मरुद्धाऽनिलगतिः शुष्ककण्ठो हतस्वरः।
ताम्यन् प्रसक्तं श्वसिति येन स स्वरहाऽनिलात्।। (A.H. Ut. 21/57)

Treating laryngitis is generally straightforward, unless the condition persists for an extended period. My personal guideline is to perform laryngoscopy if the patient experiences hoarseness of voice for more than three weeks. While this is not a universal guideline, I have implemented it in my practice to avoid misdiagnosis, as serious conditions like tuberculosis can sometimes present with similar symptoms. Laryngoscopy provides a safer investigation option, but I typically reserve it for cases persisting beyond three weeks. While occurrences of such issues are not very common, even having one patient among hundreds is significant enough to warrant caution.

**Key point**

- Hoarseness of voice
- Malaise

**Treatment:**

- Mrityunjaya Rasa
- Triphala Guggulu
- Amritarishta
- Khadiradi Vati /Lavangadi Vati for chewing

**Laryngoscopy is a must if symptoms persist beyond 3 weeks**

## Tracheitis – Vataja/Pittaja Kasa:

Moving on to tracheitis, which affects the deeper parts of the respiratory tract, patients typically experience substernal chest pain, which is a characteristic feature of this condition. Compared to other respiratory infections, there is typically less sputum production. Acharya Vagbhata and Acharya Charaka describe this condition as a Vataja and Pittaja complication. In cases where it is a Vataja complication, dry sputum is a characteristic feature.

हृच्छङ्खमूर्धोदरपार्श्वशूली क्षामाननः क्षीणबलस्वरौजाः।
प्रसक्तमन्तःकफमीरणेन कासेत्तु शुष्कं स्वरभेदयुक्तः।।(Su. Ut. 56/8)

उरोविदाहज्वरवक्त्रशोषैरभ्यर्दितस्तिक्तमुखस्तृषार्तः।
पित्तेन पीतानि वमेत् कटूनि कासेत् स पाण्डुः परिदह्यमानः।। (Su. Ut 52/9)

In tracheitis, Swarabheda (voice changes) is a common feature, but patients may only produce sputum after exertion, requiring straining to expel it. For Vataja-type tracheitis, characterized by dry sputum, my prescription includes Mrityunjaya Rasa, Sootashekhara Rasa, Laghusoota Mishrana, and Somasava. If the symptoms indicate Pittaja-type tracheitis, characterized by a burning sensation in the substernal area, I prefer Sitopaladi Choorna instead of Sootashekhara Rasa, opting for relatively sheeta veerya (cooler) substances over ushna veerya (warmer) ones. Additionally, I recommend Pippalyasava in this condition. Results from these treatments are usually satisfactory, often surpassing those of contemporary methods. Many patients who have previously sought treatment elsewhere and found it ineffective turn to Ayurvedic treatment with positive outcomes. Unlike modern antibiotics or volatile substance-containing syrups, which can exacerbate irritation, our approach offers a stronger solution for tracheitis, where specific contemporary treatments are lacking.

**Treatment:**

- Mrityunjaya Rasa
- Sootashekhara Rasa
- Laghusoota Mishrana / Sitopaladi Choorna
- Somasava / Pippalyasava

## Bronchitis- Kaphaja Kasa:

As inflammation progresses further, it leads to bronchitis. In bronchitis, patients typically experience thick sputum and a relatively low-grade fever. From a clinical perspective and for management purposes, I categorize bronchitis into two categories, which is my personal categorization and may not align with conventional texts.

In the initial stages, bronchitis often presents with symptoms characteristic of Kaphaja Kasa, as described by Acharya Sushruta. Patients may have reduced appetite, and pain tends to worsen when the stomach is empty.

> प्र(वि)लिप्यमानेन मुखेन सीदन् शिरोरुजार्तः कफपूर्णदेहः ।
> अभक्तरुग्गौरवसादयुक्तः कासेत ना सान्द्रकफं कफेन ।। (Su. Ut. 52/10)

In bronchitis, some patients may experience cough exacerbation after eating, while others find relief from coughing after consuming food. This distinction, not commonly mentioned in textbooks, is significant. For those whose cough worsens on an empty stomach and improves after eating, typical of Kaphaja

Kasa, Tribhuvanakeerthi Rasa is my drug of choice. Tribhuvanakeerthi Rasa is particularly effective for Kaphaja involvement. Additionally, if the patient has a fever, I also prescribe Mrityunjaya Rasa. Steam inhalation is another beneficial management strategy for bronchitis.

In X-rays of patients with bronchitis, minimal mottling may be observed, which is a typical sign of Kaphaja Kasa, one variety of bronchitis.

**Key points**

- Fever
- Thick and scanty expectoration
- Crepitations

**Treatment:**

- Mrityunjaya Rasa
- Tribhuvanakeerthi Rasa
- Laghusoota Mishrana
- Somasava
- Steam inhalation

## Bronchitis:

In some cases of bronchitis, patients may exhibit more symptoms related to either Pitta or Vata imbalances. These patients often experience increased crepitation and greater sputum production. Symptoms tend to worsen after eating, and posture may also play a role; lying down at night can exacerbate symptoms, while symptoms may be milder during the day and in an upright position.

In patients with Pitta or Vata-dominant symptoms, X-rays may reveal increased mottling and dense fibrous tissue formation, particularly in the right lower lobe. These findings are indicative of Vata or Pitta-related bronchitis.

> तमकः कफकासे तु स्याच्चेत् पित्तानुबन्धजः ।
> पित्तकासक्रियां तत्र यथावस्थं प्रयोजयेत् ।। (Ch.Chi.18/131)

This categorization of bronchitis is within our domain, as contemporary science does not typically classify it in this manner. For patients falling into this category, I prescribe Mrityunjaya Rasa and Makaradhwaja. I prefer this combination because bronchitis is often a prolonged condition requiring extended treatment. Patients should be mentally prepared for a slow recovery, as improvement may

not be immediate. I advise patients to continue treatment for at least one month; shorter durations may not yield optimal results.

Makaradhwaja, when combined with Laghusoota Mishrana, has shown promising outcomes in my practice. However, other drugs with similar properties, such as those with strong Tikshna and Kaphaghna qualities, can also be effective. Regardless of the specific medication chosen, treatment should be prolonged, lasting for at least three weeks to one month.

**Symptoms:**

- More than 1 week
- Expectoration thinner and more crepitations
- Inspiratory rhonchi [Local]
- Dyspnoea

**Treatment:**

- Mrityunjaya Rasa
- Makaradhwaja
- Laghusoota Mishrna
- Madhuyashti Choorna
- Somasava
- Duration of treatment: 3 weeks/ One month

# Recurrent bronchitis

> यदा स्रोतांसि संरुध्य मारुतः कफपूर्वकः ।
> विष्वग्व्रजति संरुद्धस्तदा श्वासान्करोति सः ।। (Ch. Chi. 17/45)

I am using certain words which are not technically perfect. Technically perfect word will be chronic bronchitis. But I will not reserve that word because there is another interface that we can see in the clinical condition. This is not mentioned in the textbooks. So, I take all the liberty to go beyond the textbooks from that point of view. It is a sort of interface between chronic bronchitis and acute bronchitis. To make a diagnosis of chronic bronchitis, symptoms should persist for six months. But I have plenty of patients who do not fit into the definition of chronic bronchitis including six months duration. But otherwise, they have all the symptoms of chronic bronchitis and I use the word recurrent bronchitis for such a category of patients. In this condition, there is a repeated history of cough and fever, occasional rhonchi and crepitation being the important auscultatory

signs. Development of the fibrous bands found at the right lower lobe in chest X-ray would be one of the important features. Basic management would be the same. Once the patient's acute symptoms are resolved, to prevent further recurrence Kumaryasava is a treatment for the residual Aama. I do not prefer Laghusoota Mishrana. Kumaryasava along with Mrityunjaya Rasa and Arogyavardhini Rasa can effectively prolong the interval of the attacks and after the prolonged duration of the treatment, the attacks can be subsided. Another important benefit would be seen in patients practicing yoga at this stage, particularly pranayama. Practicing yoga, particularly Pranayama is another kind of recommendation which can be given and where you can see significant results in short duration.

**Signs and symptoms:**

- Repeated episodes of cough, fever
- Breathlessness
- Crepitations with rhonchi
- Expectoration – more yellowish

**Treatment:**

- Shwasakuthara Rasa
- Arogyavardhini Rasa
- Makaradhwaja
- Laghusoota Mishrana -1 month
- Madhuyashti Choorna - 1 month
- Somasava - 1 month
- Kumaryasava after the episode

## Bronchiectasis -Kshataja Kasa

It is common for many patients to seek help from Ayurveda clinicians after experiencing symptoms for prolonged periods, sometimes spanning years. In many cases, contemporary science struggles to provide satisfactory treatment, with lobectomy often being the ultimate solution. Even after lobectomy, complete recovery may not be achieved, and systemic complications from the infective pathology can persist. I categorize these patients as having Kshataja Kasa, reflecting the extensive damage and chronic nature of their condition.

इदानीं क्षतकासस्य निदानादि निरूपयति.....
युद्धाद्यैः साहसैस्तैस्तैः सेवितैरयथाबलम्।।२७।।
उरस्यन्तःक्षते वायुः पित्तेनानुगतो बली।

कुपितः कुरुते कासं कफं तेन सशोणितम्।।
पीतं श्यावं च शुष्कं च ग्रथितं कुथितं बहु।
ष्ठीवेत्कण्ठेन रुजता विभिन्नेनेव चोरसा।।
सूचीभिरिव तीक्ष्णाभिस्तुद्यमानेन शूलिना।
पर्वभेदज्वरश्वासतृष्णावैस्वर्यकम्पवान्।।
पारावत इवाकूजन् पार्श्वशूली ततोऽस्य च।
क्रमाद्वीर्यं रुचिः पक्ता बलं वर्णश्च हीयते।।
क्षीणस्य सासृङ्मूत्रत्वं स्याच्च पृष्ठकटीग्रहः। (A.H. Ni 3/27 -31)

The typical presentation of sputum in bronchiectasis is often purulent and pus-like. An important clinical sign is postural drainage, where the quantity of sputum produced varies depending on the patient's position. Patients may report that when they lie down on one side, either left or right, they experience increased sputum production. This position-related expectoration quantity is a key diagnostic indicator for bronchiectasis. If a patient reports that their sputum production is more pronounced in a specific position, it strongly suggests a diagnosis of bronchiectasis.

X-rays often reveal a characteristic "bee hive" like appearance, a hallmark feature of bronchiectasis. Acharya Sushruta described a distinctive "pigeon-like" sound associated with this condition, which can be heard upon auscultation. While this sound is typically categorized as rhonchi, there is not a specific technical term distinct from rhonchi to describe it. This sound comprises coarse crepitation and rhonchi, resembling the cooing of a pigeon.

In patients with bronchiectasis, it is crucial to rule out underlying pathologies, particularly those associated with chronic rheumatoid arthritis and collagen tissue disorders, which are common contributors to bronchiectasis. Additionally, cystic fibrosis is prevalent among children with bronchiectasis, while HIV can also be a common cause. Before proceeding with treatment, it is essential to thoroughly investigate and rule out these underlying conditions through detailed history-taking and necessary diagnostic tests. So, in case of bronchiectasis, you have to have a more detailed history workup. It is not simply about the cough and the respiratory symptoms. You have to take the history of other treatment taken earlier. When the patient would have an underlying pathology naturally, the outcome would be poor.

My treatment in that condition would be Mrityunjaya Rasa, Suvarnamalini Vasantha with Laghusoota Mishrana and Pushkaramoolasava/Vasakasava. Suvarnamalini Vasantha is given at the lower dose, one gram per week.

Pushkaramoolasava is preferred when the patient has pain as symptom. Vasakasava is preferred when patient having more sputum. Pushkaramoolasava or Vasakasava could be used alternately as per the clinical presentation. But the treatment has to be given for prolonged period. I have patients who are being treated for 10 years and patients are in a satisfactory level.

**Underlying conditions to be ruled out:**

- Rheumatoid arthritis
- Cystic fibrosis
- HIV

**Effective palliative measures:**

- Mrityunjaya Rasa
- Suvarnamalini vasantha 1 gm
- Laghsoota Mishrana 25gm
- Pushkaramoolasava / Vasakasava ¼ tsf TDS

In cases where the patient is physically fit, 'Virechana' therapy can be beneficial and lead to significant symptom resolution. While it is important to acknowledge that complete cure may not be achievable for bronchiectasis, effective management at a more satisfactory level compared to contemporary methods is possible with our medicines. Patients can live with the condition for 10-15 years or more and maintain a normal life, provided they receive proper treatment. Educating the patient about these possibilities is crucial.

Postural drainage is indeed crucial in managing bronchiectasis. Techniques like Bhastrika Pranayama or educating patients on simple methods to facilitate sputum clearance each morning is valuable. These practices play a significant role in overall symptom management and improvement for patients with bronchiectasis.

In bronchitis cases, steam inhalation can provide relief, but it is not as effective for bronchiectasis. While steam inhalation is not harmful for bronchiectasis, it doesn't offer significant benefits. Instead, postural drainage techniques like 'Bhastrika Pranayama' can be very helpful. This involves holding the breath and then forcefully exhaling, aiding in clearing mucus from the airways. Postural expectoration holds greater value than other medical treatments for bronchiectasis. While physicians may not always have time to educate patients about this technique, once patients understand its benefits, they can

incorporate it into their daily routine. Patients should aim to perform this exercise every morning, immediately after waking up, repeating it five times. Consistent practice of this technique can provide significant relief for bronchiectasis symptoms.

## Pneumonia

Pneumonia typically arises from an infective pathology that progresses through the respiratory tract and directly affects the lungs. Its clinical presentation often follows a specific pattern: in the initial week, patients typically experience dry cough, increased respiratory rate (tachypnea), and elevated temperature (fever). The second week usually marks a productive phase as symptoms begin to resolve.

Traditionally, pneumonia has been viewed as a three-week illness. However, contemporary protocols have seen a reduction in fatal complications associated with pneumonia, rendering it less commonly categorized as a fatal disease. The clinical features of the same are described by Acharya Vagbhata as a variation of Vataja Kasa.

> अधुना वातकासस्य निदानादिनिर्देशार्थमाह ।
> कुपितो वातलैर्वातः शुष्कोरःकण्ठवक्त्रताम् ।।
> हृत्पार्श्वोरःशिरःशूलं मोहक्षोभस्वरक्षयान् ।
> करोति शुष्कं कासं च महावेगरुजास्वनम् ।।
> सोऽङ्गहर्षी कफं शुष्कं कृच्छ्रान्मुक्त्वाऽल्पतां व्रजेत् । (A.H. Ni 3/22,23)

In instances where a person consumes Vatala Ahara leading to Vata Prakopa (aggravation), several characteristic clinical signs may emerge, resembling the evolving stages of pneumonia. Initially, there may be a high fever accompanied by dry cough, which are hallmark signs of the initial phase of consolidation in pneumonia, typically observed in the first week. Another notable feature is the resolving of symptoms after food consumption, akin to what may be observed in Tracheitis. However, it is important to differentiate this from Tracheitis as confusion may arise solely based on clinical symptoms. Auscultation of the lungs may reveal a distinct feature of bronchial breathing at the affected area, and localized pain over the chest cage may also occur due to involvement of the pleura.

**Signs and symptoms:**

- High fever
- Chest Pain

- Tachypnoea
- Dry cough -first week
- Productive cough - second week
- Bronchial breathing
- Crepitation
- Raised Leucocyte count

In cases of pneumonia with severe clinical manifestations or underlying pathology, where the leukocyte count exceeds 17,000/µL, I typically opt for antibiotic treatment. Patients often seek Ayurvedic treatment in the second week of illness, as the fever tends to be higher in the initial week and some prefer alternative therapies initially. Interestingly, I have observed that patients who consistently take Ayurvedic medicines for common respiratory tract infections are less likely to develop pneumonia. This observation holds particularly true for paediatric patients, among whom the incidence of pneumonia is nearly non-existent compared to other demographics. This observation warrants further investigation through objective studies to delineate the differences. For patients with a leukocyte count below 16,000/µL, my management approach remains unchanged.

**Treatment:**

- Mrityunjaya Rasa in first week, Lakshminarayana Rasa in second week
- Makaradhwaja
- Laghusoota Mishrana
- Amritarishta / Somasava /Vasakarishta

**Antibiotic therapy needed in:**

- Total leucocyte counts more than 16,000/ µL
- Children
- Co- existing diseases
- Non resolving pneumonia

My management would remain the same. I don't make much of difference because it is Vataja Kasa variety, except for the duration of treatment. But at the same time there is serious issue of non-resolving pneumonia, it is also a problem for contemporary pulmonologist. Pneumonia which fails to get resolved in three weeks is always something like underlying atom bomb. So, there may be some serious pathology and it should be investigated thoroughly. You may need bronchoscopy, cytology and so on. If there is provision of

infrastructure for investigation then get it done otherwise refer patient to higher centre.

## Chronic obstructive and restrictive lung disorder

Patients with chronic respiratory obstructions are commonly referred to as "asthma patients," but this term can be misleading. In reality, individuals with chronic breathlessness, regardless of the underlying cause, fall into two primary categories: obstructive or restrictive. Pulmonologists typically manage these conditions based on this classification. While there are various underlying diseases, the approach to management focuses on whether there is an obstruction to air passage or a reduced capacity for lung expansion and ventilation. Pulmonologists often use spirometry to assess these conditions, but they can also be identified without it through careful observation of the patient. Both obstructive and restrictive pathologies present with persistent breathlessness that worsens after exercise, leading to similar clinical symptoms. Interestingly, Acharya Charaka clearly delineated these differences while describing Urdhva Shwasa.

दीर्घं श्वसिति यस्तूर्ध्वं न च प्रत्याहरत्यधः ।
श्लेष्मावृतमुखस्रोताः क्रुद्धगन्धवहार्दितः ।।
ऊर्ध्वदृष्टिर्विपश्यंश्च विभ्रान्ताक्ष इतस्ततः ।
प्रमुह्यन् वेदनार्तश्च शुष्कास्योऽरतिपीडितः ।।
ऊर्ध्वश्वासे प्रकुपिते ह्यधःश्वासो निरुध्यते ।
मुह्यतस्ताम्यतश्चोर्ध्वं श्वासस्तस्यैव हन्त्यसून् ।।
इत्यूर्ध्वश्वासः । (Ch. Chi.17/49-51)

"श्लेष्मावृतमुखस्रोताः" refers to an obstructive phenomenon, while "ऊर्ध्वश्वासे प्रकुपिते ह्यधःश्वासो निरुध्यते" indicates that expiration is maintained but inspiratory efforts are lesser than expiratory, which is a typical feature of restrictive phenomenon. With these clear definitions from Acharya Charaka, we have an authoritative basis to address these conditions. While sophisticated technologies may occasionally be required, keen observation can often suffice. Obstructive conditions typically include chronic bronchitis, emphysema, cystic fibrosis, among others, while restrictive conditions may involve interstitial lung disorders, obesity, scoliosis, and so forth. Differentiating the underlying pathology is essential for appropriate management.

## Obstructive and restrictive pattern

In a typical obstructive pathology, inspiration is of low intensity and expiration is prolonged. This difference can be easily observed with keen attention. In normal patients, inspiration and expiration occur smoothly. However, in patients with obstructive pathology, inspiration starts earlier and the overall breathing rate is increased. Conversely, in restrictive pathology, patients may struggle to initiate inspiration and may often try to open their mouths to facilitate breathing. In obstructive pathology, patients may find it difficult to exhale and may lean forward to aid expiration. While spirometry can be helpful, it is not necessary in every case. If feasible, spirometry can provide graphs and results that are sufficient to differentiate between obstructive and restrictive patterns. Understanding the underlying pathology can offer additional advantages, but effective management is possible even without this knowledge.

# Interstitial lung disorder-Restrictive lung disease

Among the restrictive conditions, one of the most common varieties we encounter is interstitial lung disorders. The incidence of these disorders has been rapidly increasing, attributed to factors like pollution, lack of exercise, and obesity. Many individuals, even at a younger age, are affected by restrictive pathology. Early identification of restrictive lesions is crucial, especially as initial stages may lack obvious clinical signs. Symptoms may only become apparent during rigorous exercise, such as climbing stairs, leading to dyspnoea. Pranayama, when practiced regularly, can play a significant role in preventing the progression of interstitial lung disorders if identified early. However, once the disease becomes established, the efficacy of Pranayama diminishes, and additional medical management may be required. Clinical symptoms often include crepitation and reduced breath sounds, a stage Acharya Charaka referred to as Kshudra Shwasa.

रूक्षायासोद्भवः कोष्ठे क्षुद्रो वात उदीरयन्।
क्षुद्रश्वासो न सोऽत्यर्थं दुःखेनाङ्गप्रबाधकः।। (Ch .Chi.17/65)

An important consideration is that Shwasa and Kasa are considered as originating from the gastrointestinal tract from Ayurveda point of view. While Avipattikara Choorna and Godanti Bhasma are commonly used for gastrointestinal disorders, my prescription includes Avipattikara Choorna along with Mrityunjaya Rasa and Arogyavardhini Rasa for respiratory conditions. Pranayama remains a valuable therapy, as discussed earlier. Another beneficial treatment is Virechana, but it should be reserved for physically fit patients. While

traditionally 'Vamana' is recommended, I tend to avoid it due to potential patient intolerance. Instead, I prefer Virechana, which yields significant improvements in patient outcomes compared to contemporary treatments. While interstitial lung disorders may not be completely curable, prioritizing Pranayama, respiratory exercises, Virechana, lifestyle management, and medical treatment can lead to better patient outcomes.

**Sign and symptoms:**

- Exercise intolerance
- Dry Cough
- Repeated episodes
- Crepitation with reduced inspiratory sounds
- Systemic signs –Club fingers, Scleroderma

**Treatment:**

- Shvasakuthara Rasa
- Arogyavardhini Rasa
- Pippalyasava /Draksharishta
- Avipattikara choorna
- Godanti Bhasma
- Pranayama helps significantly. Virechana is useful.

## Interstitial lung disorders

In cases of severe interstitial lung disorders where lung capacity is significantly reduced, characterized by persistent breathlessness (Shwasa), I typically recommend Shwasakuthara Rasa and Arogyavardhini Rasa, in addition to the standard treatment including Makaradhwaja. For patients with advanced fibrosis and chronic bronchitis, resulting in substantial reduction of lung volume, Brimhana chikitsa, such as Chyavanprasha, may be prescribed. Alternatively, for milder cases, Virechana can be more beneficial. Virechana and Chyavanaprasha can be alternated as part of long-term or lifelong treatment regimens for these conditions. Suggested drugs for sever ILD:

- Shwasakuthara Rasa
- Arogyavardhini Rasa
- Pushkaramoolasava
- Makaradhwaja
- Laghusoota Mishrana

- Chyavanaprasha
- Virechana

## Emphysema

Emphysema is a common and severe chronic condition. Interestingly, Acharya Vagbhata describes a similar condition where air becomes trapped, referring to it as "Vata stagnation in the chest region," which produces disease. This is also called "Amashaya Samudhbhava Vyadhi."

> कफोपरुद्धगमनः पवनो विष्वगास्थितः ।
> प्राणोदकान्नवाहीनि दुष्टः स्रोतांसि दूषयन् ।।
> उरःस्थः कुरुते श्वासमामाशयसमुद्भवम् । (A. H. Ni 4/3)

Emphysema is characterized by trapped air in the chest region. Acharya Vagbhata uses similar terminology, describing it as one of the varieties of Shwasa. The main clinical features include shortness of breath, recurrent episodes, and typical emphysematous breathing. Auscultation reveals a reduced gap between inspiratory and expiratory sounds, with decreased intensity and duration of inspiratory sounds, which are characteristic of emphysema.

Contemporary medicine primarily manages emphysema with bronchodilators and regular use of inhalers, but it lacks a curative approach. Consequently, patients with emphysema often seek treatment from Ayurveda practitioners. The treatment duration can vary from a month to a year, and it is common for patients to alternate between modern medical treatments and Ayurveda.

For Ayurvedic management, I recommend Avipattikara Choorna and Draksharishta due to the condition's association with Dhatukshaya. Makaradhwaja is also prescribed as part of the treatment regimen.

**Key points**

- Short breath
- Auscultatory findings
- Recurrent episodes

**Treatment:**

- Shwasakuthara Rasa
- Punarnava Mandoora
- Makaradhwaja

- Sitopaladi Choorna
- Draksharishta
- Avipattikara Choorna
- Virechana

## Pulmonary tuberculosis:

Identifying pulmonary tuberculosis (TB) is relatively straightforward, and adherence to national health guidelines is essential. These guidelines are becoming increasingly stringent. Once TB is diagnosed through clinical signs and a positive sputum test, it must be reported. The National Tuberculosis Elimination Program (NTEP) imposes strict regulations and legal obligations for reporting TB cases, with legal consequences for practitioners who fail to report.

Reporting TB cases through the 'Nikshay' (https://nikshay.in/) website directly benefits patients. They receive a financial incentive of 2000 rupees and are guided to monitor their treatment daily. Laboratories are also required to report positive TB test results.

Ayurvedic management has a definitive supportive role in TB treatment, complementing primary anti-tubercular therapy. While it cannot replace the primary treatment, Ayurveda can effectively manage complications and symptoms associated with TB treatment. For symptomatic management, Arogyavardhini Rasa and Kumaryasava are beneficial. Makaradhwaja and Laghusoota Mishrana can help alleviate cough and sputum production, while Rasayana therapy, such as Chyavanaprasha, can be useful for overall well-being.

Multidrug-resistant tuberculosis (MDR-TB) is another area where Ayurveda can offer support. According to current guidelines, MDR-TB must also be reported. Ayurveda can play a significant role in improving outcomes for MDR-TB patients, who are often burdened with multiple medications. I consider MDR-TB as Dhatugata Vishama Jwara and recommend the following Ayurvedic treatments:

- Laxminarayana Rasa
- Arogyavardhini Rasa
- Abhraka Bhasma
- Makaradhwaja

- Sitopaladi Choorna
- Vasakarishta /Draksharishta

These Ayurvedic treatments can help manage the condition more effectively and improve the patient's quality of life. However, the cost of treatment with medicines like Abhraka Bhasma can be higher. While there may not be a large number of such patients, many will seek Ayurvedic treatment upon learning they have MDR-TB. This is a sensitive area requiring careful management.

सगात्र स गात्रशूलज्वरदाहमोहान् प्राणक्षयं चोपलभेत कासी।
शुष्यन् विनिष्ठीवति दुर्बलस्तु प्रक्षीणमांसो रुधिरं सपूयम्।।
ससर्वलिङ्गं भृशदुश्चिकित्स्यं चिकित्सितज्ञाः क्षयजं वदन्ति।। (Su. Ut. 52/12,13)

**Key points**

- Chronic history
- Low grade fever
- Thick expectoration
- Emaciation
- Bronchial breathing
- Cavernous breathing
- Diabetes, HIV etc

**Supportive treatment in tuberculosis:**

- Arogyavardhini Rasa
- Kumaryasava / Draksharishta
- Makaradhwaja
- Laghusoota Mishrana
- Rasayana therapy – Chyavanaprasha

# Pleural effusion:

Acharya Sushruta has described various types of pleural effusions, including Kaphapurna Koshtha (Hydrothorax), Lohitapurna Koshtha (Hemothorax), and Vata Purna Koshtha (Pneumothorax), while detailing Marma Viddha Lakshana. Pyothorax, or the presence of pus in the pleural space, is mentioned in the context of Urokshata Vyadhi. According to Acharya Sushruta, these conditions are generally considered incurable. Therefore, a more detailed and modern approach is necessary for their management.

**Identification and Diagnosis**

Identifying pleural effusion involves simple clinical examinations such as auscultation and observation of respiratory movements. A plain chest X-ray can also provide confirmatory evidence. Once pleural effusion is diagnosed, aspiration of the fluid is necessary to determine its cause. The effusion could be tubercular, pyogenic, malignant, or due to transudative or systemic pathologies like cardiac conditions.

**Updated Clinical Guidelines**

Previously, it was common to assume that 75% of pleural effusions were tubercular and to start anti-tubercular treatment immediately. However, current guidelines emphasize the need to aspirate the fluid and identify its origin before starting treatment. This ensures a precise diagnosis and appropriate management of the underlying cause.

**Ayurvedic Management**

While modern diagnostic and therapeutic approaches are essential, Ayurvedic treatments can offer supportive care for symptomatic relief. Recommended Ayurvedic formulations include:

- Gokshuradi Guggulu
- Punarnava Mandoora
- Pushkaramoolasava

These can help alleviate symptoms such as pain and distress, even in cases of malignant effusions.

**Necessity for Specialized Care**

Pleural effusion management often requires a more sophisticated setup than a typical outpatient department (OPD). This includes facilities for proper investigation and aspiration of pleural fluid. Therefore, it is crucial to refer patients to specialized clinical setups where these procedures can be conducted methodically.

**Key points:**

- Diagnostic and curative tapping

# Pyothorax

व्यायामभाराध्ययनैरभिघातातिमैथुनैः ।
कर्मणा चाप्युरस्येन वक्षो यस्य विदारितम् ।
तस्योरसि क्षते रक्तं पूयः श्लेष्मा च गच्छति ।।
कासमानश्छर्दयेच्च पीतरक्तासितारुणम् ।
सन्तप्तवक्षाः सोऽत्यर्थं दूयनात्परिताम्यति ।।
दुर्गन्धवदनोच्छ्वासो भिन्नवर्णस्वरो नरः । (Su. Ut.41/24,25,26)

## Hydrothorax, Haemothorax Pneumothorax:

सत्त्वरजस्तमसामधिष्ठानं हृदयं, तत्रापि सद्य एव मरणं; स्तनयोरधस्ताद् द्व्यङ्गुलमुभयतः स्तनमूले, तत्र कफपूर्णकोष्ठतया (कासश्वासाभ्यां) म्रियते; स्तनचूचुकयोरूर्ध्वं द्व्यङ्गुलमुभयतः स्तनरोहितौ, तत्र लोहितपूर्णकोष्ठतया कासश्वासाभ्यां च म्रियते; अंसकूटयोरधस्तात् पार्श्वोपरिभागयोरपलापौ नाम, तत्र रक्तेन पूयभावं गतेन मरणं; उभयत्रोरसो नाड्यौ वातवहे अपस्तम्भौ नाम, तत्र वातपूर्णकोष्ठतया कासश्वासाभ्यां च मरणम्; एवमेतान्युदरोरसोर्द्वादश मर्माणि व्याख्यातानि (Su. Sha 6/25)

## Pericardial effusion:

Pericardial effusion, a condition characterized by fluid buildup around the heart, has become increasingly prevalent over the past decade, especially among elderly and diabetic patients. Although the exact cause remains elusive, medication overload is suspected to play a role. When patients, particularly those with diabetes, report chest heaviness or discomfort, it prompts consideration for pericardial effusion.

**Diagnosis**

Auscultation can provide initial insights, but if uncertainty persists, further investigation is imperative. Echocardiography stands as the gold standard for diagnosis, offering detailed and accurate assessments. While X-ray imaging may also offer useful information, echocardiography remains the preferred diagnostic modality due to its precision.

**Clinical Presentation**

According to Acharya Vagbhata, patients with pericardial effusion may describe sensations akin to having a stone in their chest. For diabetic individuals aged over 50 experiencing chest compression or typical chest pain, echocardiography is recommended to rule out pericardial effusion.

**Conclusion**

Given the increasing incidence of pericardial effusion, especially among elderly diabetic patients, clinicians must maintain a heightened awareness of this condition. Timely diagnosis via echocardiography facilitates prompt intervention and management, thereby mitigating potential complications associated with pericardial effusion.

श्लेष्मणा हृदयं स्तब्धं भारिकं साश्मगर्भवत्।।
कासाग्निसादनिष्ठीवनिद्रालस्यारुचिज्वराः। (A.H.Ni. 5/42)

In cases of pericardial effusion, a comprehensive evaluation is crucial, especially if echocardiography is not readily accessible. Consulting with specialists may be necessary to ensure accurate diagnosis and management. While modern medicine typically prescribes diuretics like Furosemide to manage fluid buildup, it is advisable not to discontinue this medication abruptly.

In addition to the prescribed diuretics, Ayurvedic supplements such as Prabhakara Vati, Punarnava Mandoora, and Punarnavasava can offer supportive benefits. While these treatments may not cure pericardial effusion, they can complement standard therapy and potentially enhance outcomes. However, it is essential to continue treatment until there is clear clinical evidence of resolution.

Treatment discontinuation should be approached cautiously, taking into account the patient's specific medical history and condition. For diabetic patients with resolved pericardial effusion, discontinuing treatment may be feasible. However, in cases of chronic hypertension and cardiomegaly, ongoing medication may be necessary to manage underlying cardiovascular issues.

Ultimately, treatment decisions should be tailored to each patient's individual needs and preferences, with a focus on optimizing overall health and well-being.

**Palliative management includes following drugs:**

- Prabhakara Vati
- Punarnava Mandoora
- Punarnavasava

## Pulmonary hypertension:

Pulmonary hypertension often manifests in patients with a history of cardiac interventions. While the intensity of symptoms may appear milder initially, the disease presentation is evolving. Unlike in the past where patients with pulmonary hypertension were considered acute emergencies, the condition is now recognized as a chronic issue. Patients may exhibit subtler symptoms such as a large amount of watery sputum and nocturnal dyspnoea. An indication of potential cardiac involvement and pulmonary hypertension is the need for two or more pillows at night for comfort, which warrants thorough investigation. Despite the subdued presentation, significant pulmonary hypertension may be revealed upon investigation.

Supportive management is crucial due to the presence of coexisting pathologies. However, standardizing classification and management of these pathologies can be challenging. Supportive management typically involves similar medications used for pleural effusion. It is essential not to overlook these conditions and to develop a refined clinical approach for accurate diagnosis and effective management. Regular monitoring and thorough evaluation are key to addressing pulmonary hypertension and its associated complexities.

## Congestive Cardiac Failure:

कफवातात्मकावेतौ पित्तस्थानसमुद्भवौ।
हृदयस्य रसादीनां धातूनां चोपशोषणौ।।

तस्मात् साधारणावेतौ मतौ परमदुर्जयौ।
मिथ्योपचरितौ क्रुद्धौ हत आशीविषाविव।। (Ch. Chi. 17/8,9)

Acharya Charaka's description highlights the complexity of congestive cardiac failure (CCF), suggesting its difficulty to manage solely with Ayurvedic treatment. However, while Ayurvedic treatment may not be the sole solution, it can complement contemporary treatments effectively. Recognizing CCF is crucial, and certain clinical signs like tachycardia and basal crepitation can raise suspicion even before the onset of edema, which typically occurs later in the disease progression. Therefore, identifying CCF in its early stages before edema develops is advantageous for timely intervention and management.

## Carcinoma:

Lung carcinoma presents a diagnostic challenge due to its varied clinical manifestations. The two main categories are small cell lung carcinoma and non-small cell carcinoma, with the former being more prevalent among smokers. Surprisingly, chest pain is the most common symptom according to Harrison's Principle of Internal Medicine, with cough and haemoptysis occurring in only 8% of patients. Elderly patients experiencing unexplained weight loss or intermittent chest pain unrelated to exertion, especially if atypical for cardiac pain, should undergo thorough investigation including chest X-rays, MRI scans, and bronchoscopy. While lung carcinoma treatment falls outside the scope of Ayurveda, supportive care options like Arogyavardhini Rasa and Kumaryasava can be considered.

Chapter

3

# Udakavaha Srotas and Prameha

There is considerable confusion regarding the description of Udakavaha Srotas. The term "Udaka" refers to all fluid compartments in the body, including both extracellular and intracellular compartments.

द्रवास्तु यत्तदतियोगेन च्यवमानं पुरीषमनुबध्नाति।
तथामूत्रं रुधिरमन्यांश्च शरीरे धातून्।
यच्च सर्वशरीरगतंबाह्या त्वग्विभर्ति।
यच्च त्वगन्तरे व्रणगतं लसीकाशब्दवाच्यम्।
यच्चोष्मानुबद्धं रोमकूपेभ्योऽभिनिष्यतत्स्वेदवाच्यम्।
तदुदकम्। (A.H.Ni.5/90)

त्वक्प्रसादाद्रक्तस्य प्रसादः।
उदकधरा त्वक् तासामुदकधरा चाद्या ।। (A.H.Ni 5/25)

In the above shloka, Acharya Vagbhata describes the various forms of Udaka present in different regions of the body. Udaka includes all fluids found throughout the body, such as those in the skin, urine, sweat, and lasika (the fluid present below the skin).

## Prameha:

Here, I am considering Prameha as a disorder of Udakavaha Srotas, although it is controversial whether Prameha should be classified under disorders of Udakavaha Srotas or Medovaha Srotas.

यद्द्रवसरमन्दस्निग्धमृदुपिच्छिलं रसरुधिरवसाकफपित्तमूत्रस्वेदादि
तदाप्यं रसो रसनं च । (Ch.Sha.7/16)

उदकवहानां स्रोतसां तालुमूलं क्लोम च। (Ch.Sha.5/8)

इन्द्रियप्राणवहानि च स्रोतांसि सूर्यमिव गभस्तयः संश्रितानि, बस्तिस्तु स्थूलगुदमुष्कसेवनीशुक्रमूत्रवाहिनीनां नाडी(ली)नां मध्ये मूत्रधारोऽम्बुवहानां। (Ch.Si 9/5)

According to Acharya Charaka, the Basti is the area where all the Udakavaha Srotas converge, using the analogy of rivers flowing into the sea to describe this confluence. The Talu and Kloma are considered the roots of the Udakavaha Srotas. Many Ayurvedic anatomists identify the Kloma as the pancreas. Prameha is one of the diseases associated with the Basti. While Basti could refer to the urinary bladder or another set of organs, I consider it to encompass the entire urinary tract, not just the bladder.

Mootrakriccha, Mootraghata, and Prameha are disorders of the urinary tract. I view Prameha as a nephrological problem, while Mootraghata and Mootrakriccha are urological issues. These conditions are also related to the Basti, which refers not only to the urinary bladder but to the entire urinary tract.

बस्तिमाश्रित्य कुरुते प्रमेहान् दूषितः कफः।
दूषयित्वा वपुःक्लेदस्वेदमेदोरसामिषम् ।।
धातून् बस्तिमुपानीय तत्क्षयेऽपि च मारुतः।। (A.H.Ni 10/4)

बह्वबद्धं मेदो मांसं शरीरजक्लेदः शुक्रं शोणितं वसा मज्जा लसीका रसश्चौजःसङ्ख्यात इति दूष्यविशेषाः।। (Ch.Ni 4/7)

Among the Basti gata vyadhi, Prameha is the most significant. It involves multiple Dhatus, including Kleda, Medas, Vasa, Mamsa, as well as Shukra and Shonita. In the case of Prameha, nearly every component of the body is involved in its pathogenesis, not just Udaka. It represents a broad spectrum of diseases encompassing many different pathological conditions.

--तेषां मेदोमूत्रकफावहम् ।।

अन्नपानक्रियाजातं यत्प्रायस्तत्प्रवर्तकम् ।
स्वाद्वम्ललवणस्निग्धगुरुपिच्छिलशीतलम् ।।

नवधान्यसुरानूपमांसेक्षुगुडगोरसम् ।
एकस्थानासनरतिः शयनं विधिवर्जितम् ।। (A.H.Ni10/1,2,3)

स चापि गमनात् स्थानं स्थानादासनमिच्छति ।
आसनाद्दणुते शय्यां शयनात् स्वप्नमिच्छति । (Su. Ni 6/25)

दिवास्वप्नाव्यायामालस्यप्रसक्तं शीतस्निग्धमधुरमेद्यद्रवान्नपानसेविनं पुरुषं जानियात् प्रमेही भविष्यतीति। (Su.Ni 6/3)

There are twenty varieties of Prameha. The primary cause of Prameha is anything that adversely affects Medas (fat), Mutra (urine), or Kapha (one of the three doshas). These causes can arise from either dietary habits or lifestyle activities, making Prameha primarily a lifestyle disorder. The major etiological factors are mentioned in the above shloka, including the consumption of Nava Dhanya (new grains), ingestion of Sura (alcohol), and prolonged sitting. A sedentary lifestyle and excessive sleep are the main contributors to the development of Prameha.

The features of Prameha patients are uniquely described in the Sushruta Samhita: "A person who is walking prefers to sit; one who is sitting opts to lie down; one who is lying down desires to sleep; and one who is sleeping dislikes awakening—these are the signs of Prameha." I believe there is no better description of a diabetic personality than this.

## Madhumeha and Diabetes

सर्व एव प्रमेहास्तु कालेनाप्रतिकारिणः ।
मधुमेहत्वमायान्ति तदाऽसाध्या भवन्ति हि । (Su. Ni 6/12)

पिडकापीडितं गाढमुपसृष्टमुपद्रवैः ।
मधुमेहिनमाचष्टे स चासाध्यः प्रकीर्तितः ।। (Su. Ni 6/24)

The relationship between Madhumeha and Diabetes Mellitus is a fundamentally disputed issue. While Diabetes Mellitus is commonly understood as Madhumeha, I differ from this established convention for the following reasons. Madhumeha is classified as a Vataja Prameha, whereas Diabetes Mellitus predominantly presents with Kaphaja Prameha characteristics. The end stage of any type of Prameha, if not managed properly, leads to the Madhumeha stage. Additionally, any type of Prameha that presents with complications can be referred to as Madhumeha.

## Type 1 and Type 2 Diabetes Mellitus

द्वौ प्रमेहौ भवतः- सहजोऽपथ्यनिमित्तश्च ।
तत्र सहजो मातृपितृबीजदोषकृतः, अहिताहारजोऽपथ्यनिमित्तः ।
तयोः पूर्वेणोपद्रुतः कृशो रूक्षोऽल्पाशी पिपासुर्भृशं परिसरणशीलश्च भवति; उत्तरेण स्थूलो बह्वाशी स्निग्धः शय्यासनस्वप्नशीलः प्रायेणेति ।। (Su.Chi 11/3)

Acharya Sushruta has identified two classical subtypes of Prameha: Sahaja Prameha and Apathya Nimittaja Prameha. Sahaja Prameha is considered a genetic condition, while Apathya Nimittaja Prameha is acquired due to lifestyle

factors. Similarly, Acharya Charaka categorized patients with Prameha into two types: Sthoola Pramehi (obese diabetes) and Krisha Pramehi (non-obese diabetes).

The treatment and prognosis for Sthoola Pramehi differ significantly from those for Krisha Pramehi. This distinction aligns with the modern classification of diabetes mellitus into Type 1 and Type 2. Historically, these were known as insulin-dependent and non-insulin-dependent diabetes mellitus, respectively. Charaka Samhita's descriptions of Sthoola Pramehi and Krisha Pramehi closely match the clinical presentations of Type 2 and Type 1 diabetes mellitus respectively. Additionally, Acharya Charaka noted that most diseases are caused by Santarpana rather than Apatarpana.

India faces the concerning prospect of becoming the diabetes capital of the world in the near future. It is predicted that by 2024, more than half of the world's diabetic population will reside in India. While the global incidence of Type 1 diabetes in India is relatively low, the American continents report the highest incidence rates of this type. The incidence of type 2 Diabetes in India and South Asia is maximum.[1]

## World health organization of Diabetes - Country profile 2016 in India

The World Health Organization's Diabetes Country Profile for India in 2016 indicates a significant mortality rate due to diabetes mellitus. In that year, over 120,000 people aged between 36 and 69 years died from diabetes, and nearly another 100,000 people over the age of 70 years succumbed to the disease. Additionally, almost three times these numbers died due to complications related to hypertension, with most of these hypertensive patients also suffering from diabetes. The majority of these deaths were associated with Type 2 Diabetes, which generally has a better prognosis and can be more effectively managed than Type 1 Diabetes.

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*[1] Katsarou, A., Gudbjörnsdottir, S., Rawshani, A. et al. Type 1 diabetes mellitus. Nat Rev Dis Primers **3**, 17016 (2017). https://doi.org/10.1038/nrdp.2017.16)*

## Diabetes prevalence, by region of birth and BMI category: National Health Interview Survey

In my opinion, the incidence of Type 2 diabetes is closely related to obesity, weight gain, lifestyle, and Body Mass Index (BMI). BMI is considered one of the predictive factors for diabetes risk. Comparative studies have shown that, despite having a lower average BMI, the incidence of diabetes is higher among Indian and African populations compared to Americans. Another factor drawing attention in research is genetics and its impact on body weight. The Indian population generally has a lower average body weight compared to Western populations. India also has a higher proportion of underweight individuals, and within this underweight category, the incidence of diabetes is higher in India than in other regions.

Overweight or obesity is widely recognized as the primary cause of diabetes worldwide, and textbooks universally support the link between obesity and diabetes. A BMI over 28 $kg/m^2$ is generally considered the cutoff for an increased risk of diabetes and metabolic disorders. However, Indians, who often have a lower average BMI, are still prone to developing diabetes. This anomaly highlights a significant issue derived from statistical facts and suggests that factors other than BMI, such as genetics, may play a crucial role in the development of diabetes in the Indian population. [1]

This led to a theory proposed by genetic scientist James V. Neel, known as the "Thrifty Gene" hypothesis. Neel suggested that certain populations, particularly those from the Indian subcontinent and other eastern regions, possess these genes, which were historically advantageous for surviving famines by promoting efficient fat storage. In contrast, this gene is less prevalent in Western populations, leading it to be termed the "Famine Gene."

Indian scientists quickly embraced this theory, somewhat proudly, as evidence of a unique genetic trait. However, this perspective is problematic and should be critically examined. It can foster biased perceptions of Indian culture and oversimplify the complex interplay of genetics, environment, and lifestyle in the development of diabetes. Addressing diabetes requires a nuanced

*1 Narayan K. M. (2016). Type 2 Diabetes: Why We Are Winning the Battle but Losing the War? 2015 Kelly West Award Lecture. Diabetes care, 39(5), 653–663. https://doi.org/10.2337/dc16-0205*

understanding that goes beyond genetic determinism and avoids reinforcing cultural stereotypes.

The hypothesis suggests that Indian people, historically accustomed to food scarcity and fasting, developed genetic adaptations to survive these conditions. This perspective aligns with the theory that Indian culture traditionally followed a hunter-gatherer lifestyle. Additionally, anthropological studies have often compared Indian culture with that of Iran, suggesting similar evolutionary pressures and genetic traits.

However, it is crucial to approach this hypothesis with caution. While genetic factors undoubtedly play a role in health outcomes, it is important not to oversimplify or stereotype Indian culture and history. A comprehensive understanding of diabetes in India should also consider contemporary factors like diet, lifestyle, and socio-economic conditions, rather than relying solely on historical and genetic explanations.

The “Famine Gene” or “Thrifty Gene” theory proposes that the hunting and gathering culture of earlier eras and prolonged periods of food scarcity led to a genetic predisposition for storing energy and fat more efficiently. This was advantageous for survival during times of famine.

In contemporary times, however, Indians have better and more consistent access to food due to various factors, including the adoption of Western dietary habits, advancements in agriculture, and improved farming techniques. As a result, the once beneficial tendency to store energy has become detrimental. With continuous food availability, the body continues to store energy, leading to increased fat accumulation and body weight. This, in turn, contributes to the development of insulin resistance and higher insulin production, eventually increasing the risk of Type 2 diabetes.

In cases where the body has abnormal adipose tissue deposition, it needs more insulin, and that insulin is not sufficient or may face insulin resistance. The deficiency of insulin is not the cause of type 2 Diabetes mellitus. There is no scarcity of insulin in the body, but it is not capable of functioning properly due to insulin resistance.[1]

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[1] *NEEL J. V. (1962). Diabetes mellitus: a "thrifty" genotype rendered detrimental by "progress"? American journal of human genetics, 14(4), 353–362.*

आस्यासुखं स्वप्नसुखं दधीनि ग्राम्यौदकानूपरसाः पयांसि ।
नवान्नपानं गुडवैकृतं च प्रमेहहेतुः कफकृच्च सर्वम् ।।(Ch.Chi. 6/4)

त्रयाणामेषां निदानादिविशेषाणां सन्निपाते क्षिप्रं श्लेष्मा प्रकोपमापद्यते, गतिभूयस्त्वात्; स प्रकुपितः क्षिप्रमेव शरीरे विसृप्तिं लभते, शरीरशैथिल्यात्; स विसर्पञ् शरीरे मेदसैवादितो मिश्रीभावं गच्छति, मेदसश्चैव ह्लबद्धत्वान्मेदसश्च गुणैः समानगुणभूयिष्ठत्वात्; स मेदसा मिश्रीभवन् दूषयत्येनत्, विकृतत्वात्; स विकृतो दुष्टेन मेदसोपहितः शरीरक्लेदमांसाभ्यां संसर्गं गच्छति, क्लेदमांसयोरतिप्रमाणाभिवृद्धत्वात्; स मांसे मांसप्रदोषात् पूतिमांसपिडकाः शराविकाकच्छपिकाद्याः सञ्जनयति, अप्रकृतिभूतत्वात्; शरीरक्लेदं पुनर्दूषयन् मूत्रत्वेन परिणमयति, मूत्रवहानां च स्रोतसां वङ्क्षणबस्तिप्रभवाणां मेदःक्लेदोपहितानि गुरूणि मुखान्यासाद्य प्रतिरुध्यते; ततः प्रमेहांस्तेषां स्थैर्यमसाध्यतां वा जनयति, प्रकृतिविकृतिभूतत्वात् ।। (Ch. Ni. 4/8)

This basic theory explaining the involvement of fat resulting in resistance to insulin is described in the same terms by Acharya Charaka, and the only difference is an expression in another language. The above shloka implies that initially there is a fusion of prakupita Kapha with Meda and further with Kleda and Mamsa Dhatu. This may be suggesting insulin resistance.

The whole issue of diet and lack of exercise results in insulin resistance. An explanation from gene theory is not a new one, and that kind of explanation is also found in Charaka Samhita.

## Distribution of fat

The distribution of the fat in the body would be of different categories. Accumulation of fat resulting in obesity is categorized into 6 subtypes based on their precipitating causes. Of course, there are many classifications.

1. Obesity caused by food (More fat accumulation in the chest, abdomen, and back along with upper limbs)
2. Obesity generated by a “nervous stomach (Fat accumulated in the lower abdomen and lower back)
3. Obesity-related to gluten (Fat primarily in the lower abdomen and thighs.)
4. Metabolic obesity (Fat concentrated in the abdominal area, leading to a protruding belly.)
5. Obesity caused by the venous circulation (Fat accumulation predominantly in the thighs and legs)
6. Obesity from inactivity (Fat accumulated in the upper and lower abdomen)

In India, we commonly come across the first and sixth types of fat distribution. They are more prone to develop diabetes mellitus than others. It is not only BMI that is responsible for the possibility of diabetes, but it is about the fat distribution also which increases the risk when fat is accumulated more in the abdomen and thoracic area.

## Metabolic Syndrome

**American health care association guidelines:** [3 of 5]

- Fasting glucose ≥100 mg/dL (or receiving drug therapy for yperglycaemia)
- Blood pressure ≥130/85 mm Hg (or receiving drug therapy for hypertension)
- Triglycerides ≥150 mg/dL (or receiving drug therapy for hypertriglyceridemia)
- HDL-C < 40 mg/dL in men or < 50 mg/dL in women (or receiving drug therapy for reduced HDL-C)
- Waist circumference ≥102 cm (40 in) in men or ≥88 cm (35 in) in women; if Asian and ≥90 cm (35 in) in men or ≥80 cm (32 in) in women if merican.

The risk of Diabetes could be identified even before onset of diabetes and this is mentioned in Charaka and Sushruta Samhita.

> प्रमेहपूर्वरूपाणामाकृतिर्यत्र दृश्यते । किञ्चिच्चाप्यधिकं मूत्रं तं प्रमेहिणमादिशेत् ।।
> कृत्स्नान्यर्धानि वा यस्मिन् पूर्वरूपाणि मानवे । प्रवृत्तमूत्रमत्यर्थं तं प्रमेहिणमादिरोत् ।।
> (Su. Ni 6/ 22,23)

Whenever a patient has any of the Poorva roopa like a tendency to go to sleep and reduced physical activity, or excessive micturition, it could be considered possibly because of Prameha. So, the whole issue of identifying the patients in the early stage, identifying the risky patients, is nothing new from the Ayurvedic point of view.

## Global hunger index and prevalence of diabetes in India

As per the global hunger index, India is ranked at 103rd place in 2018, which was at 97th place earlier. The hunger index score of India is showing a downward tendency but at the same time incidence of diabetes is increasing proportionately. This may support the concept of "Famine gene" as a cause to Diabetes. [1]

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[1] *Pradeepa, R., & Mohan, V. (2017). Prevalence of type 2 diabetes and its complications in India and economic costs to the nation. European journal of clinical nutrition, 71(7), 816–824. https://doi.org/10.1038/ejcn.2017.40*

## Global heat map of mean birth weight

Indian and eastern countries had hunting and gathering cultures and therefore these races are supposed to be underweight. The people in the Eastern countries and East Asian countries are relatively of low birth weight up to about 2800 gm. While the British population has a maximum of 3000gm of birth weight.[1]

Another data from the source shows that the mass of every organ in the body like the pancreas, kidney, spleen, liver etc have lesser size among in east Asian subcontinent including India. [2] [3]

**Rank order size and shapes across the three races on certain important morphological traits**[4]

| Trait number | Trait name | Africans | Europeans | East Asian |
|---|---|---|---|---|
| **1** | Cranial capacity ($cm^3$) | 1356(1) | 1371(2) | 1383(3) |
| **2** | Height(cm) | 169.5(2) | 170.5(1) | 166.3(3) |
| **3** | Weight(kg) | 70.7(2) | 71.0(1) | 69.5(3) |
| **4** | EQ | 6.38(1) | 6.50(2) | 6.95(3) |

If we see the size of the brain, it shows different sizes in different races. The size of the brain and level of I.Q of East Asian races is given in the above table. The total cranial capacity is much higher compared to Europeans and Africans. So

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*[1] World Health Organization. Low Birth Weight: A Tabulation of Available Information. Geneva: WHO; (1992). [Google Scholar])*
*2 de la Grandmaison, G. L., Clairand, I., & Durigon, M. (2001). Organ weight in 684 adult autopsies: new tables for a Caucasoid population. Forensic science international, 119(2), 149–154. https://doi.org/10.1016/s0379-0738(00)00401-1*

*[3] Kohli A, Aggarwal N. Normal organ weights in Indian adults. Medico-Legal Update-Int J (2006) 6(2):49–52. [Google Scholar]*
*https://www.researchgate.net/publication/289681802_Normal_organ_weights_in_Indian_adults*

*[4] Rushton, J.P., & Rushton, E.W. (2003). Brain size, IQ, and racial-group differences: Evidence from musculoskeletal traits. Intelligence, 31, 139-155.*

that's the basic issue. We are meant to have a lower body weight but we are supposed to have a relatively higher intellectual capacity.

According to the published data, it is evident that the Indians have a body where the physical proportions of the body are smaller, whereas the intellectual capacity is more.[1] [2]

So, the "Famine gene" which is supposed to have developed due to hunger and the scarcity of food, according to me, is one of the signs of evolution, where there is a tendency to develop intellectual capacity. The whole problem now is we have that gene, but we are not living according to their genetic character. Therefore, prescription of supplements like vitamins, minerals etc for low weight are not really needed in India.

The whole lean mass is lesser in the Indian races, naturally whenever there's even a small amount of fat accumulated, that provides the appearance of a bulged abdomen. It is the quality that is attributed to genes. Now it is named as Harappan gene.[3]

In the case of a thin phenotype, there would be better tolerance to fat accumulation, whereas the thick phenotype has a lesser tolerance to accumulation of fat. Therefore, even a slight amount of fat increase amongst the Indian population results in diabetes much earlier than in western population. So, we are more prone to diabetes because our body's structure is not meant for that kind of accumulation of fat.[4]

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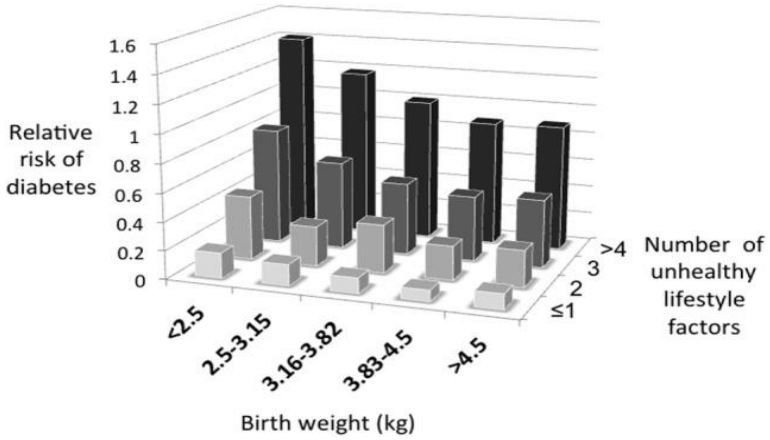
[1] *Rushton, J. P., & Ankney, C. D. (2009). Whole brain size and general mental ability: a review. The International journal of neuroscience, 119(5), 691–731. https://doi.org/10.1080/00207450802325843.*

[2] *RACE, EVOLUTION AND BEHAVIOR: Life History Perspective,2nd Special Abridged EditionProfessor J. Philippe Rushton University of Western Ontario London, Ontario, Canada N6A 5C2(3) Source: THIRD UNABRIDGED EDITION OF Race Evolution, and Behavior (PP. P-24, 159, 287).)*

[3] *Wells, J. C., Pomeroy, E., Walimbe, S. R., Popkin, B. M., & Yajnik, C. S. (2016). The Elevated Susceptibility to Diabetes in India: An Evolutionary Perspective. Frontiers in public health, 4, 145. https://doi.org/10.3389/fpubh.2016.00145*

[4] *Subramanian, S. V., Ackerson, L. K., & Smith, G. D. (2010). Parental BMI and childhood undernutrition in India: an assessment of intrauterine influence. Pediatrics, 126(3), e663–e671. https://doi.org/10.1542/peds.2010-0222*

The capacity–load model illustrated the prospective risk of developing diabetes in three US cohort.[1]




The risk of diabetes mellitus is now identified with the risk of low birth weight. Those who have a low birth weight, they are having a higher risk of diabetes. It is not a primary risk factor, whenever there are cumulative factors and precipitating factors result in an early and a higher incidence of diabetes.

The vertical axis of the graph shows the risk factors, whereas the horizontal is about the birth weight, the lower the birth weight even with a lesser incidence of the risk factors, diabetes would be pronounced whereas the higher the birth weight, the better tolerance. Genetically we are meant to have lesser birth weight.

## Cultural perspective on food and its significance in Indian tradition:

In my opinion, the theory of the famine gene is a myth. Indian tradition has always been characterized by abundance rather than scarcity, which is why it

[1] *Li, Y., Ley, S. H., Tobias, D. K., Chiuve, S. E., VanderWeele, T. J., Rich-Edwards, J. W., Curhan, G. C., Willett, W. C., Manson, J. E., Hu, F. B., & Qi, L. (2015). Birth weight and later life adherence to unhealthy lifestyles in predicting type 2 diabetes: prospective cohort study. BMJ (Clinical research ed.), 351, h3672. https://doi.org/10.1136/bmj.h3672*

attracted Western invaders. These invaders came to India seeking food and other benefits, not because it was a land suffering from famine.

The Indian Council of Medical Research reports that Bengal experienced a five-year famine starting in 1857, which supposedly led to the development of famine genes. However, genetic changes do not occur within just five years; they require many generations to mutate. Moreover, these famine genes are said to have existed 5,000 years ago, as reported in literature. This challenges the entire theory of the Aryan invasion and the idea that farming originated somewhere else.

Despite scientific claims that we possess genes adapted to scarcity and live in a famine-prone area, historical evidence tells a different story. Our culture has always emphasized "eating to live" rather than "living to eat," and agriculture has sustained us well. There is a need to ensure better nourishment based on our scientists' findings.

An interesting fact is that Annapurna, the goddess of food, signifies through prayer that the purpose of food is to achieve knowledge and detachment from the material world. This fundamental theme appears to be lost in our present perspective. It may seem odd and even a subject of ridicule to assert that the purpose of food consumption is not solely for oneself. Instead, it is a universal activity that requires sharing and maintenance. The tradition dictates that whenever you have food, you must share it with others first. Only after sharing should you consume the remaining food. The duty is to serve food to guests first, and only then should you eat what is left.

In our culture, we have a tradition of sharing food, first with others and then with loved ones. This is not about displaying wealth or hosting a party; it serves a deeper purpose. Only after providing food to society and those in need should the remaining food be consumed. The modern practice of parties and get-togethers does not align with the true essence of Indian culture.

Nowadays, every occasion seems to be a reason for indulgence in food, such as hi-tea or intermittent snacking. This reflects a fundamental issue in our current approach to food consumption. The basic problem contributing to the rise in diabetes is that we are not living according to our genetic predispositions. Our true identity is rooted in intellectual capacity, not constant physical activity. If

we adhere to a diet that aligns with our genetic pattern, I am confident that the incidence of diabetes would decrease.

> आस्यासुखं स्वप्नसुखं दधीनि ग्राम्यौदकानूपरसाः पयांसि ।
> नवान्नपानं गुडवैकृतं च प्रमेहहेतुः कफकृच्च सर्वम् ।(Ch.Chi.6/4)
>
> तत्रेमे त्रयो निदानादिविशेषाः श्लेष्मनिमित्तानां प्रमेहाणामाश्वभिर्निर्वृत्तिकरा भवन्ति; तद्यथा-
>
> हायनकयवकचीनकोद्दालकनैषधेत्कटमुकुन्दकमहाव्रीहिप्रमोदकसुगन्धकानां नवानामतिवेलमतिप्रमाणेन चोपयोगः, तथा सर्पिष्मतां नवहरेणुमाषसूप्यानां, ग्राम्यानूपौदकानां च मांसानां,
>
> शाकतिलपललपिष्टान्नपायसकृशराविलेपीक्षुविकाराणां, क्षीरनवमद्यमन्दकदधिद्रवमधुरतरुणप्रायाणां चोपयोगः, मृजाव्यायामवर्जनं, स्वप्नशयनासनप्रसङ्गः, यश्च कश्चिद्विधिरन्योऽपि श्लेष्ममेदोमूत्रसञ्जननः, स सर्वो निदानविशेषः ।(Ch. Ni. 4/5)

In the above shloka, various causes of diabetes are described, many of which are similar to those identified in contemporary medicine. Any substance that leads to the accumulation of energy or calories can contribute to the development of diabetes. When your body has an excess of calories that are not properly utilized, it becomes a causative factor for diabetes.

## Spectrum of diabetic patients in my practice:

| | | |
|---|---|---|
| 1 | Fresh diagnosis, Patient visiting for other complaints | 5% |
| 2 | Recently diagnosed, opting Ayurvedic management | 5% |
| 3 | On medical management. Opting an Ayurvedic management /Supplement | 5% |
| 4 | Unsatisfactory glycaemic control, Seeking Ayurvedic management | 10% |
| 5 | Stabilized glycaemic control. Accompanying disorders like Hypertension, Osteoarthrosis etc | 25% |
| 6 | Unstable diabetes with other diseases | 25% |
| 7 | Diabetic complications | 10% |
| 8 | Gangrene, ulcers | 10% |
| 9 | Ketoacidosis | 2% |
| 10 | Insulin dependent diabetes Seeking replacement/Supplement | 3% |

In the present situation articulating the complex clinical phenomena of diabetes that I have experienced in my clinical practice, is challenging. So, the

classification of patients is primarily based on varieties that I have seen, and the percentage is just rough, it may not be very accurate. The distribution of the patients in the clinical practice will vary from physician to physician because all the patients come to be depending on the perception of society. Some physicians may be perceived as a specialist for diabetes and the pattern of the cases may be different. But what I have found in my practice is that majority of the patients with diabetes recommend that category, where the patients are having some treatment of diabetes, are stabilized or their diabetes is unstable. But they come to you for other disease conditions may not be directly for the diabetes treatment, but you cannot neglect diabetes. Patients who come primarily for the treatment of diabetes are comparatively lesser just about 5%. The patients in whom I diagnosed diabetes are just about 5%. There's another major category where patients come with diabetic complications, particularly diabetic ulcers and gangrene. However, patients coming with acute complications are low in number. Now my strategies and approach to the treatment according to different categories are explained.

## 1. Fresh diagnosis, Patient visiting for other complaints

The diagnosis of diabetes patients typically relies on classical clinical signs such as polyphagia, polydipsia, and polyuria. However, beyond these, several other classic indicators can aid in diagnosing diabetes early, even before the appearance of classical signs. Among these indicators, infections in the genital area, such as balanitis or vaginitis, are particularly significant.

**Unconventional stigma**

- Numbness [Neuritis]
- Balanitis/Vaginitis
- Brachial neuralgia
- Frozen shoulder
- Taeniasis
- Folliculitis
- Sleep disorders
- Sexual incompetence

I have a rule in my practice: when a patient presents with clinical symptoms like frozen shoulder or balanitis, I always recommend a sugar profile test. Surprisingly, more than 70% of these patients turn out to be diabetic. Although older textbooks used to include these symptoms as stigmata, recent revisions have omitted them. However, their incidence remains significant.

There are other signs that raise suspicion of diabetes. For instance, patients who report numbness, especially those who say they can't feel whether they're wearing slippers or not, often have diabetes. This could indicate complications.

Additionally, sexual dysfunction and sleep disturbances should prompt investigation for diabetes.

Once a patient is diagnosed with diabetes and no critical complications are present, my initial approach to treatment is advising on diet and exercise for one month. After reevaluating the blood sugar level and only if it is beyond critical levels, I initiate treatment.

The concept of borderline diabetes can indeed be confusing, as different guidelines suggest varying cutoff values. In my practice, I rely on specific criteria: a fasting blood sugar level above 160 mg/dL and postprandial levels exceeding 200 mg/dL on more than two occasions before diagnosing a patient as diabetic. This diagnosis may be reconsidered if there are other clinical signs present.

For patients with borderline diabetes or impaired glucose tolerance and no other clinical evidence of diabetes, I recommend strict dietary control and observation. If blood glucose levels remain elevated despite adherence to dietary restrictions, my initial prescription focuses on targeting Kapha Dosha and Meda Dhatu, according to Ayurvedic principles.

- Asanadi kwatha
- Chandraprabha Vati
- Arogyavardhini Rasa
- Virechana followed by proper Samsarjana krama

If a patient follows proper Samsarjana Krama, then I recommend Virechana. However, in the case of diabetes, Virechana can potentially lead to complications if the Samsarjana Krama is not followed correctly. Therefore, Virechana should only be advised to patients who can reliably adhere to the proper Samsarjana Krama, as failure to do so could result in more complications.

After Virechana, significant relief can be observed in the majority of patients, and many can be maintained as non-diabetics. This underscores the importance of meticulous follow-up and adherence to post-procedure protocols to ensure the best outcomes.

## HbA1c levels

The consideration of HbA1c levels for diagnosing diabetes mellitus remains a topic of debate. Cut-off levels for HbA1c also undergo frequent revisions, with the latest suggesting a level more than 6.5% to indicate diabetic status. Personally, I classify patients as diabetic only when their HbA1c levels exceed 8%. Until then, I treat them as non-diabetic and attempt management through the use of Asanadi Kwatha, Chandraprabha Vati, and Arogyavardhini Rasa.

## Management depending on other added clinical signs

This is not the primary treatment for diabetes, it is additional treatment. The other additional prescription will be depending upon other additional clinical signs.

**Dose, Duration:**

- Neuritis/ Underweight – Ashwagandharishta
- Balanitis – Gandhaka Rasayana
- Taeniasis –Laghu Sootashekhar Vati + Gandhaka Rasayana
- Neuralgia – Ekangaveera Rasa/Vishamusti Vati
- Stress – Saraswatarishta (in mild to moderate stress) and 'Smriti Sagar Rasa' in severe stress.

## 2. Recently diagnosed, opting Ayurvedic management:

These patients prefer solely Ayurvedic treatment but often struggle with noncompliance and dropout rates. It is important to acknowledge that satisfying these patients can be challenging. In diagnosed cases of diabetes where patients aren't undergoing any treatment, I prioritize monitoring specific clinical symptoms such as neuritis, vascular pathology, albuminuria, and cardiovascular status. It is commonly observed that diabetic patients tend to be irregular with treatment, often seeking care from multiple doctors

**Key points**

- Screen for allied complications
- Neuritis
- Vascular pathology
- Albuminuria
- Cardiovascular status

If the patient has any of the above complications, energetic treatment is required.

- Chandraprabha Vati
- Arogyavardhini Rasa
- Avipattikar Choorna along with Godanti Bhasma

If a patient exhibits persistent hyperglycemia according to WHO criteria and impaired glucose tolerance, I would prescribe Chandraprabha Vati, Aroyavardhini Rasa, and Avipattikar Choorna along with Godanti Bhasma. I would recommend Virechan therapy only to patients committed to following the Samsarjana Krama properlyIn case of high-risk patients my choice would be

- Asanadi Kwatha
- Chandraprabha Vati
- Arogyavardhini Rasa

In uncomplicated case with blood sugar level within 200mg/dl or HBA1c less than 7.5%, I would manage patient with diet, exercise for 1 month and follow up.

## 3. On medical management (Satisfactory glycaemic control) opting for Ayurvedic treatment:

It is crucial to exercise caution when transitioning patients who have received satisfactory medical management to Ayurvedic treatment. For patients who have already been prescribed medication or are taking multiple medications, my advice would be to avoid sudden or abrupt changes in their regimen. Abrupt alterations in prescriptions can lead to spikes in blood sugar levels, which pose a greater risk than consistently high blood sugar levels. I do prescribe the same medication discussed before like –

- Asanadi Kwatha
- Arogyavardhini Rasa
- Chandraprabha Vati/ Diabecon

I generally avoid using patented drugs in my practice, but Diabecon is an exception that I frequently employ. Previously, I prescribed Vanga Bhasma or Jasada Bhasma, but encountered issues with the availability of reliable samples in the market. Therefore, I turned to Diabecon, occasionally using it for patients who show resistance to other treatments. After closely monitoring blood sugar levels and achieving optimal maintenance, I attempt to gradually reduce oral hypoglycemic drugs. However, withdrawing from the existing regimen is a complex process.

**The strategy of withdrawal of oral hypoglycaemics**

In today's market, fixed-dose combinations of oral hypoglycemic drugs (e.g., Glimepiride and Metformin) are widely available, with various brands mixing

different anti-diabetic drugs in different proportions. While these combinations may offer potential benefits, they often deviate from classical treatment approaches and can lead to complications in patients. While some modern doctors share my concerns, market dynamics and economic factors often influence prescribing practices.

From our perspective, the challenge arises when determining the appropriate treatment duration and deciding which drugs to withdraw. I advocate for transitioning patients to generic medicines whenever possible, which not only saves money but also provides flexibility in adjusting treatment regimens. When patients come to me on multiple drug regimens and express willingness to continue treatment, I gradually switch them to generic equivalents with the same combination of drugs.

Once patients are on generic medications, we can more easily withdraw individual drugs as needed. Managing multiple combinations available in the market can be daunting, making it essential to focus on core drugs like sulfonylureas and metformin, which have stood the test of time.

I prioritize reducing newer drugs and aim to maintain patients on either sulfonylureas or metformin alongside Ayurvedic treatments. For patients experiencing gastrointestinal symptoms, I avoid sulfonylureas. If hepatic or respiratory complications arise, I reduce meglitinides like Repaglinide and Nateglinide. In cases of weight gain, I consider withdrawing Metformin if feasible. Pedal edema could indicate an involvement of Thiazolidinediones prompting their reduction. For patients on α-Glucosidase inhibitors, elevated alkaline phosphate levels suggest the need for withdrawal.
When withdrawing a drug, the goal is to avoid spikes in blood sugar levels, ensuring consistent glucose control and stability.

**Key points**
Strategy of withdrawal of oral hypoglycaemics

- Sulfonylureas (glipizide, glyburide, gliclazide, glimepiride)-GIT symptoms
- Meglitinides (Repaglinide and Nateglinide)–Hepatic renal and Respiratory symptoms
- Biguanides (Metformin)-Renal involvement, Weight gain
- Thiazolidinediones (rosiglitazone, pioglitazone)-Cardiac symptoms, Oedema

- α-Glucosidase inhibitors (acarbose, miglitol, voglibose)-Hepatic involvement
- DPP-4 inhibitors (sitagliptin, saxagliptin, vildagliptin, linagliptin, alogliptin)- GIT involvement
- SGLT2 inhibitors (dapagliflozin and canagliflozin)- Renal involvement
- Cycloset (Bromocriptine)-Neurological symptoms [ Rare prescriptions]

## 4. Unsatisfactory glycaemic control – Opting for Ayurvedic management / Supplement

Another group of patients seeking Ayurvedic treatment are those with unsatisfactory glycemic control. While there's nothing specific about this category of patients, it is essential to be mindful of potential complications. These patients are at increased risk, particularly if complications arise, as Ayurvedic drugs might be scrutinized. Educating patients about this is crucial. The primary goal is to prevent or delay complications rather than solely managing diabetes. Ayurvedic drugs like Asanadi kwatha, Chandraprabha Vati, etc., can be safely prescribed without significant risks. However, modifying contemporary drugs in these cases is delicate. Despite efforts, dropout rates remain high.

## 5-6. Stable/Unstable glycaemic control – Other accompanying disorders

The next group of patients comprises those who have stable blood sugar levels and are managing other accompanying disorders alongside diabetes. Many patients openly disclose receiving treatment for diabetes from other sources. This group constitutes a significant portion of my patients.

The approach to managing these patients is similar to that for other diabetic patients when they have accompanying disorders, whether neurological or otherwise. However, the outcomes may be less predictable, and the duration of treatment may need to be extended. For instance, while chronic bronchitis may typically require three weeks of treatment, diabetic patients may require six weeks or more.

Despite this, managing diabetes in these patients is less burdensome, as others oversee their diabetes care. There's no risk in prescribing medications for their accompanying disorders.

Another common concern among Ayurvedic physicians is whether to prescribe Asavas or sugar-containing preparations. I prescribe them, when necessary, as Asavas are mentioned in our texts for treating Prameha (diabetes) and are indicated. Prescribing them doesn't compromise glycemic control, though the treatment duration may need to be longer.

## 7. Diabetic complications –

**Microalbuminuria**

Another significant group of patients I encounter are those with further complications, with the most common being microalbuminuria or a predisposition to develop nephropathy, sometimes progressing to full-fledged nephropathy. I consider fully developed nephropathy as indicative of true Madhumeha, the end stage of any type of Prameha.

If a patient is already on medication for these complications, I aim to maintain their current regimen. For instance, if they're on insulin therapy, I continue with that approach.

**Prescription**

- Chandraprabha Vati
- Punarnava Mandoora
- Amritarishta

These medications can help many patients maintain safe blood sugar levels for a significant duration, effectively delaying the onset of complications such as established nephropathy.

**Chronic renal failure**

In patients presenting with features of nephropathy, I will be preferring-

- Asanadi Kwatha
- Chandraprabha Vati
- Punarnava Mandoora

When considering Shotha or Madhumeha, the critical factor is the serum creatinine level. If it exceeds 6 mg/dL, I recommend dialysis, as our treatment is unlikely to produce a significant change. However, for levels below 6 mg/dL, we can manage the patient for an extended period without dialysis. We can maintain other treatments, such as insulin, during this time. I have a patient whose creatinine levels have fluctuated between 5-5.6 mg/dL for the past seven years, a stability I attribute to our treatment. Typically, once a patient's creatinine level reaches 5 mg/dL, deterioration accelerates, often leading to end-stage

renal failure and the need for dialysis within a year. Our treatment can significantly delay the need for dialysis, but patient selection is crucial. If a patient's creatinine level has already surpassed the critical limit, our treatment may not be effective. Many patients seek Ayurvedic care only when they reach this advanced stage. Therefore, I am very selective in my practice and advise high-risk patients to undergo dialysis.

The goal is not to cure but to maintain serum creatinine levels below 6 mg/dL. Delaying the need for dialysis by seven years is a significant achievement. Our treatment is effective, but it is essential to recognize its limitations. We cannot manage every case, and our focus should be on maintaining patients at a manageable level.

**Peripheral Neuritis**

In this condition my additional treatment for the diabetes would be –

- Ekangaveera Rasa
- Ashwagandharishta
- Rajayapna Basti

Rajayapana Basti is one of the regimens which we prefer in this condition.

**Arteriopathy**

- Kaishora Guggulu
- Manjishthadi kwatha
- Manjishthadi kshara Basti

**Microvascular Complication**

- I consider this condition as Uttana Vatarakta and prescribe-
- Arogyavardhini Rasa
- Manjishsthadi kwatha

**Retinopathy**

Coagulation therapy would be helpful. Along with this Triphala Choorna with Madhu and Ghrita can be administered as supportive treatment.

Microvascular complications are very specifically mentioned in textbooks.

> रसायनीनां च दौर्बल्यान्नोर्ध्वमुत्तिष्ठन्ति प्रमेहिणां दोषाः, ततो मधुमेहिनामधःकाये पिडकाः प्रादुर्भवन्ति ।। (Su .chi 12/08)

त्रयस्तु खलु दोषाः प्रकुपिताः प्रमेहानभिनिर्वर्तयिष्यन्त इमानि पूर्वरूपाणि दर्शयन्ति; तद्यथा- जटिलीभावं केशेषु, माधुर्यमास्यस्य, करपादयोः सुप्ततादाहौ, मुखतालुकण्ठशोषं, पिपासाम्, आलस्यं, मलं काये, कायच्छिद्रेषूपदेहं, परिदाहं सुप्ततां चाङ्गेषु, षट्पदपिपीलिकाभिश्च शरीरमूत्राभिसरणं, मूत्रे च मूत्रदोषान्, विस्रं शरीरगन्धं, निद्रां, तन्द्रां च सर्वकालमिति ।। (Ch.Ni 4/47)

उपद्रवास्तु खलु प्रमेहिणां तृष्णातीसारज्वरदाहदौर्बल्यारोचकाविपाकाः पूतिमांसपिडकालजीविद्रध्यादयश्च तत्प्रसङ्गाद्भवन्ति ।। (Ch.Ni. 4/48)

तत्र साध्यान् प्रमेहान् संशोधनोपशमनैर्यथार्हमुपपादयंश्चिकित्सेदिति ।।(Ch.Ni. 4/49)

Apart from development of Pidaka all the other complications are also mentioned in our classical texts. Symptoms like numbness and burning sensation at palm and soles are suggestive of peripheral neuritis, physical deformities in the form of symptoms like dryness in mouth and palate, all the different varieties of neuritis are described, reduced vitality are also described. Trishna, Atisara, Jwara, Daha, Daurbalya are the features developed due to toxaemia due to nephropathy. These complications described by Acharya Charaka and Sushruta are suggestive of poor prognosis of the disease and without supportive treatment, disease may become incurable. So, in all these conditions, it is better to go for combined prescription of both contemporary medicine and Ayurveda than only the Ayurvedic prescriptions.

## 8. Patients suffering from Gangrene and Ulcers

Majority of patients who are advised with amputation tend to come to our hospital and a large number of limbs can be saved. My approach is very much towards the debridement and not towards total amputation. Apart from regular debridement, my prescription would include-

- Triphala kwatha Parisheka
- Jatyadi taila
- Manjishtadi kshara Basti

The treatment requires a prolonged and consistent effort. Results are not achieved in just one or two weeks; it takes a long-term commitment. Focused and sustained effort is essential for saving limbs. With all humility, I can say that I have successfully saved many limbs through this approach.

**Key points**

- Conservative debridement
- Triphala kwatha Parisheka

- Jatyadi taila application
- Manjishtadi kshara Basti

This type of treatment cannot be managed at the outpatient level; a hospital infrastructure is necessary for daily monitoring and patient care. It is challenging to establish a general treatment plan because it often requires careful monitoring and regular modifications. Many times, antibiotics need to be co-prescribed.

Patients may also develop other complications, such as toxaemia or electrolyte imbalances, which need to be managed as they arise. While managing these complications is complex, it is possible with our treatment combined with other existing treatments. I do not claim that these conditions can be treated solely with our approach. Careful planning and selecting the appropriate Shasthi Upakrama as needed is essential.

## 9. Ketoacidosis

Ketoacidosis is another complication mentioned in the classical texts and is considered Asadhya.

> या वातमेहान् प्रति पूर्वमुक्ता वातोल्बणानां विहिता क्रिया सा ।
> वायुर्हि मेहेष्वतिकर्शितानां कुप्यत्यसाध्यान् प्रति नास्ति चिन्ता ।। (Ch. Chi. 6/52)

When increased Vata results in producing Moha (confusion or unconsciousness), it mirrors the condition of ketoacidosis. In such cases, the patient has effectively entered into established ketoacidosis. It is not possible to manage this condition with only Ayurvedic drugs. Following medical guidelines is crucial, including correcting fluid loss, managing hyperglycemia with insulin, addressing electrolyte imbalances, particularly potassium loss, and correcting the acid-base balance. Once these corrections are made, preventing further ketoacidosis becomes possible. Therefore, the primary approach for a patient in ketoacidosis is to stabilize them and bring them out of the crisis. And only after that I will be prescribing against him with-

- Asanadi Kwatha
- Arogyvardhini Rasa
- Chandraprabha Vati

## 10. Insulin dependent diabetics -Opting Ayurvedic management

In the Krisha Prameha category, my prescription would be to continue with insulin. For insulin-dependent or type 1 diabetes patients, we cannot

completely withdraw insulin. However, we can definitely reduce the doses. My prescription even in this would be the same-

- Asanadi kwatha
- Chandraprabha Vati

We can prevent the complications or postpone the complications effectively.

## Role of different therapies in Diabetes:

An important part of diabetes management includes diet and exercise. Global data indicates that diet and exercise can reduce HbA1c levels by around 0.5 to 2%. Therefore, exclusive diet and exercise management may be advised for borderline diabetic patients with HbA1c levels below 7.5 or 8%.

Sulfonylureas can help reduce HbA1c by 1 to 2%, while insulin has the highest capacity for reduction. For patients with very high HbA1c levels, such as 10% or higher, starting with insulin is necessary. These patients cannot be maintained on diet and exercise alone. A very high HbA1c indicates insulin dependence. Once the patient's HbA1c level is reduced to a manageable level, insulin can be gradually withdrawn, and other medications can be advised for maintenance.

**Impact of Therapies on HbA1c Levels[1]**

| Therapy | HbA1c Reduction |
|---|---|
| Diet and Exercise | 0.5-2.0% |
| Sulfonylureas and Glitinides | 1.0-2.0% |
| Metformin | 1.0 - 2.0% |
| Alpha Glucosidase Inhibitors | 0.5-1.0% |
| Thiazolidinedione | 0.5-1.0% |
| Insulin | >5.0% |

**I follow the following guideline in my practice-**

Once the patient's HbA1c is reduced to 7.5% or below, we can withdraw other drugs and maintain the patient with either diet and exercise or Ayurvedic treatments.

If HbA1c levels remain above 7.5%, it may not be possible to manage the condition with diet, exercise, or Ayurvedic drugs alone. In such cases, additional supportive medications are necessary to maintain proper glycaemic control.

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*[1] Nathan D. M. (2007). Rosiglitazone and cardiotoxicity--weighing the evidence. The New England journal of medicine, 357(1), 64–66. https://doi.org/10.1056/NEJMe078117*

## Dietary issues

Every diabetologist typically works with a dietician to provide dietary advice to diabetic patients. In my opinion, advising on diet for diabetic patients is a challenging task. A diet chart must include not only the quantification of food items but also their caloric value to be practically useful and suitable for the patient's lifestyle. Additionally, helping patients understand the concept of caloric value is another difficult aspect.

From a scientific point of view, many technical terms are used in managing diabetes, such as glycaemic index, glycaemic load, caloric value, diabetogenicity, and nutritional value. Understanding these concepts is essential for effectively training diabetic patients.

Calories measure the energy produced by food, similar to the heat generated when burning a substance. For example, burning paper produces less heat than burning wood, which illustrates diabetogenicity and glycaemic index. The glycaemic index measures how quickly a substance is absorbed and raises blood glucose levels. It is about the speed of absorption, not the quantity.

The glycaemic load considers the total quantity of glucose present, focusing exclusively on carbohydrate content. Caloric value refers to the total energy produced by burning a substance. For instance, some patients may say they consume ghee instead of sugar. However, one spoon of ghee has the same caloric value as eight teaspoons of sugar. Therefore, consuming one spoon of ghee is equivalent to consuming the caloric value of eight teaspoons of sugar.

## Fasting and diabetes

One more frequent doubt is regarding fasting and diabetes, whether it is beneficial or not?

- Nil orally for a day at regular intervals: Ekadashi Upavasa
- Water fasting: Involves drinking only water for a set amount of time.
- Juice fasting: Entails only drinking vegetable or fruit juice for a certain period.
- Intermittent fasting: Intake is partially or completely restricted for a few hours up to a few days at a time and a normal diet is resumed on other days.
- Ramzan fasting – Nil orally during daytime for 1 month

- Partial fasting: Certain foods or drinks such as processed foods, animal products or caffeine are eliminated from the diet for a set period.
- Calorie restriction: Calories are restricted for a few days every week.

We have various forms of cultural fasting, such as Ekadashi fasting, Tuesday or Thursday fasting, and Ramadan. These different fasting patterns are part of our culture and are believed to benefit health by removing toxic substances and reducing the risk of diabetes. However, the problem arises with increased calorie intake before and after the fasting day. The concept of fasting has preventive value, only if followed correctly.

I would advise Upavasa (fasting) for those not on medical treatment for diabetes. For patients on antidiabetic drugs or insulin, fasting can be more harmful. Instead, they need a uniform, regular food intake to avoid harmful fluctuations. While interruptions in food intake can benefit a healthy person, for those with diabetes, it is better to maintain a regular, disciplined diet.

The calorigenicity or diabetogenicity of a substance is not a new concept. The Ayurvedic concepts of Guru (heavy) and Laghu (light) foods are essentially the same. Acharya Vagbhata stated that when consuming Guru (diabetogenic, high-calorie) food, one should eat only until half satisfied. For Laghu (light) food, it should not be consumed to full satisfaction, leaving some space in the stomach.

मात्राशी सर्वकालं स्यान्मात्रा ह्यग्नेः प्रवर्तिका ।
मात्रां द्रव्याण्यपेक्षन्ते गुरूण्यपि लघून्यपि ।।
गुरूणामर्धसौहित्यं लघूनां नातितृप्तता ।
मात्राप्रमाणं निर्दिष्टं सुखं यावद्विजीर्यति ।(A.H.Su. 8/1,2)

अन्नेन कुक्षेर्द्वावंशौ पानेनैकं प्रपूरयेत् ।
आश्रयं पवनादीनां चतुर्थमवशेषयेत् । (A.H.Su.8/46)

The above description from classical texts suggests that half of the stomach volume should be filled with food, one-fourth with liquids, and the remaining one-fourth should be kept empty. I prefer giving this advice to my patients. I tell them not to focus so much on what they eat but rather on how much they need when they eat.

The other aspect is exercise. The best exercise advice is found in the Sushruta Samhita. Acharya Sushruta recommends collecting food grains directly from the fields, preparing food daily without storing it, and constantly moving from

place to place without staying in one location for more than a day. While this may not be practical today, the underlying principle is valuable.

Acharya Sushruta's advice for physical activity includes working in the field, ploughing, digging wells, or tending to cows. These activities are recommended for patients with Sthoola Prameha (obesity-related diabetes), while those with Krisha Prameha (lean diabetes) should be protected from physical exertion. For physically fit and overweight patients, any suitable physical activity should be advised.

In the present day, it is not possible to perform many of the exercises recommended by Acharya Sushruta, but some form of physical activity is still necessary. I always advise patients to engage in open field exercises. Although going to the gym is not harmful, it often involves consuming complex foods focused on bodybuilding. Our goal is not to build the body but to burn calories. The food recommended at gyms can be more harmful than the benefits gained from exercise.

Therefore, my advice to patients is to avoid complex routines and instead engage in simple physical activities like working in the field. A practical example is that gym memberships cost money, but digging the earth and growing plants not only provides exercise but also yields tangible benefits.

That's precisely what I advocate, and it can certainly be beneficial wherever possible. However, whether patients take this advice seriously or not is another matter. Convincing diabetic patients about these lifestyle changes can be challenging. But those who are persuaded will undoubtedly benefit. Our role is to provide guidance.

The World Health Organization (WHO) has recommended guidelines for maintaining a healthy body, which include engaging in at least 30 minutes of regular moderate-intensity activity on most days, with additional activities necessary for weight control. Additionally, eating a healthy diet, avoiding sugar and saturated fats, and abstaining from tobacco use are emphasized. Essentially, these recommendations align closely with those described in the Samhitas, albeit with differences in language and wording.

A frequently asked question is whether to consume wheat or rice. Essentially, wheat is comparatively considered a Brahmana dravya (heavy and nourishing

substance) compared to rice. Therefore, when advising a low-calorie diet, rice is preferred over wheat. However, for a high-calorie and nourishing diet, wheat is considered better than rice.

बद्धाल्पवर्चसः स्निग्धा बृंहणाः शुक्रमूत्रलाः।।
रक्तशालिर्वरस्तेषां तृष्णाघ्नस्त्रिमलापहः।(Ch.Su. 27/10)

सन्धानकृद्वातहरो गोधूमः स्वादुशीतलः।
जीवनो बृंहणो वृष्यः स्निग्धः स्थैर्यकरो गुरुः।।(Ch.Su. 27/21)

Acharya Charaka delineates wheat as Guru (heavy), Sandhanakara (binding), and Vatahara (alleviating Vata dosha). Rice, on the other hand, is recommended when there are fewer symptoms of Vata aggravation. If a patient is experiencing constipation, then rice is preferable to wheat.

Calorie value of wheat is 7 times more than rice. All the components including magnesium and other minerals are more. So, the ratio is 1:7. Wheat has more protein and less carbohydrates than rice comparatively.[1] So necessarily wheat is more guru than the rice.

When prescribing a low-calorie diet, it is preferable to recommend rice over wheat. However, if the patient is non-diabetic and emaciated, then wheat may be more suitable than rice. My advice is not to focus solely on personal preferences between wheat and rice, but rather to prioritize Satmya, which is a more important aspect often overlooked by dieticians.
I recommend continuing whatever dietary preferences suit you, but with better regulation of quantity and selection. If you maintain moderation, both wheat and rice can be beneficial. However, one common issue with wheat-based foods like chapatis or parathas is the use of ghee for seasoning. Consuming too much ghee can be more harmful than having a single teaspoon of sugar in tea daily. Therefore, I advise opting for a cup of tea with sugar once a day instead of having chapatis with ghee.

## Sugar or jaggery??

There are many myths in society regarding the use of sugar and jaggery. Our texts provide clear descriptions: the clearer the color of the product derived from sugarcane, the madhura, guru, and sheeta it becomes. White sugar, being

[1] *https://foodstruct.com/compareimages/rice-vs-wheat.jpg*

clearer in colour, possesses more diabetogenic properties compared to products derived from sugar. After consuming sugar, there is a rise in blood sugar levels within two hours, but this effect does not last long. While consuming a teaspoon of sugar once a day may not be harmful, continuous intake can be detrimental. In contrast, Purana Guda (old jaggery) is considered to be beneficial for health.

# Other Prameha

Many of Prameha described in text are not seen practically in clinical condition. Here only certain practically seen conditions are mentioned.

1. Udakameha – Diabetes insipidus
2. Ikshumeha – Diabetes mellitus
3. Sandrameha -Proteinuria
4. Surameha – Aciduria
5. Lalameha – Chronic prostatitis
6. Shuklameha – Chyluria
7. Shanaimeha – Bladder neck obstruction
8. Sitameha – Atonic bladder
9. Sukrameha – Spermaturia
10. Sikatameha – Crystalluria
11. Ksharameha – Alkalosis
12. Kala meha –Haemoglobinuria
13. Nila meha – -do-
14. Raktameha Haematuria
15. Manjishtameha -do-
16. Hardirameha–Bilirubinuria
17. Vasa meha – Lipiduria
18. Majjameha - -do-
19. Hastimeha – Chronic renal failure
20. Madhumeha - -do-

The correlation between clinical conditions mentioned in ancient texts and modern terminologies is presented in the table above, offering practical insights. However, in the present context, these perspectives may differ significantly and may not align neatly under the same category of diabetes. Clinically, such conditions are less frequent.

## Sandrameha - Proteinuria

In this condition, we can demonstrate significant results, and the incidence is quite common. Patients presenting with proteinuria require thorough evaluation. It is essential to identify the exact cause of proteinuria because not every patient falls into the same category.

| TUBULAR | OVERFLOW | GLOMERULAR |
|---|---|---|
| Acute interstitial nephritis | Multiple Myeloma [Bence Jones protein) | Nephrotic syndrome |

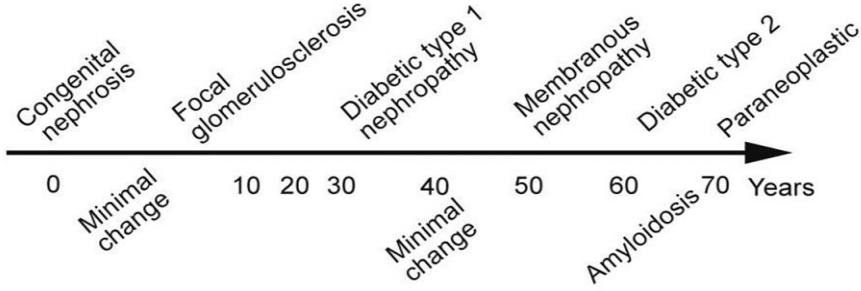
| | | |
|---|---|---|
| Immunosuppressive agents | | Membranous glomerulonephritis |
| Analgesics | | Minimal-change disease |
| Cryoglobulinemia | | Primary focal segmental glomerulosclerosis |
| Sjogren syndrome | | Fibrillary glomerulonephritis<br>Immunotactoid glomerulonephritis<br>Diabetic nephropathy<br>Amyloidosis<br>Hypertensive nephrosclerosis<br>Drug toxicity |

Nephrotic syndrome is an area where we can effectively manage patients. However, conditions like multiple myeloma, which also present with proteinuria, require a separate line of treatment and are considered incurable. Additionally, tubular conditions such as interstitial nephritis in patients taking immunosuppressive drugs pose practical risk, making the management of these conditions very complex.

## Nephrotic syndrome

It is quite important to identify the patient properly and only the minimal damage category has to be identified for Ayurvedic management.

**A schema of the average patient age at presentation in various common forms of nephrotic syndrome**[1]




In older age, diabetic type 2 patients often experience more complications, particularly neoplastic conditions. Conversely, younger patients tend to present

*1 https://emedicine.medscape.com/article/244631-overview?form=fpf#showall*

with focal pathologies such as congenital nephrosis or glomerular sclerosis. Glomerular sclerosis patients typically respond better to our treatments. However, managing later complications involving membranous conditions becomes challenging, with relatively poor outcomes. Amyloidosis, more common in older age, tends to respond better to our treatment. Therefore, we prescribe our medicine only when there is minimal change. When taking on a patient with Nephrotic syndrome, selecting the right patient is crucial but complex. Ideally, we aim for patients with minimal membrane damage. This provides a brief overview of how we select patients for treatment.

**Prescription:**

- Chandraprabha Vati
- Mrityunjaya Rasa
- Amritarishta
- Saptaparna Kwatha
- Salt restricted diet

The dosage of glucocorticoids should be tapered gradually. Saptaparna Kwatha is specifically mentioned as Sothahara in Sandrameha. There may be many patients for whom the usual prescription of steroids can be avoided. The most crucial aspect is selecting the right patient. Therefore, before planning the management and predicting the prognosis, a detailed assessment is necessary. Nephrotic syndrome can be effectively managed with this treatment. If the patient is on steroids, then tapering them gradually is essential.

# Trishna

क्षोभाद्भयाच्छ्रमादपि शोकात्क्रोधाद्विलङ्घनान्मद्यात् ।
क्षाराम्ललवणकटुकोष्णरूक्षशुष्कान्नसेवाभिः ।।
धातुक्षयगदकर्षणवमनाद्यतियोगसूर्यसन्तापैः ।
पित्तानिलौ प्रवृद्धौ सौम्यान्धातूंश्च शोषयतः ।।
रसवाहिनीश्च नालीर्जिह्वामूलगलतालुकक्लोम्नः ।
संशोष्य नृणां देहे कुरुतस्तृष्णां महाबलावेतौ ।
पीतं पीतं हि जलं शोषयतस्तावतो न याति शमम् ।
घोरव्याधिकृशानां प्रभवत्युपसर्गभूता सा ।। (Ch.Chi.22/4,5,6,7)

Trishna is considered a disorder of the Udakavaha srotas, with its literal translation suggesting 'thirst.' However, thirst itself is not a disease. The term 'Trishna' signifies thirst when translated directly. Determining whether Trishna should be classified as a disease or a symptom is a matter of debate. I would

simply suggest that whenever there is a significant fluid and electrolyte imbalance in the body, it should be regarded as Trishna Vyadhi.

## Vataja Trishna- Hyponatremia

शुष्कास्यता मारुतसम्भवायां तोदस्तथा शङ्खशिरःसु चापि।
स्रोतोनिरोधो विरसं च वक्त्रं शीताभिरद्भिश्च विवृद्धिमेति।।(Su. Ut. 48/8)

The signs of Vataja Trishna, as described by Acharya Sushruta, closely resemble the signs of dehydration. Managing dehydration involves identifying the cause and providing water in the form of Sheeta Panaka, Mantha, or oral rehydration solution.

In cases of hyponatremia, some patients require prolonged treatment, especially those with renal abnormalities who tend to develop hyponatremia. The incidence of hyponatremia has been rapidly increasing in recent years. Over the past five years, I have noticed a rise in patients with hyponatremia. Many patients, particularly those admitted to the hospital with drowsiness, exhibit hyponatremia on their serum electrolyte reports. When serum sodium falls below 120 mmol/lit, it becomes challenging to manage with oral medication and requires intravenous supplements.

In the last five years, I have administered more intravenous injections than in the previous 35 years. The reason behind this dramatic change in the presentation of chronic disorders remains unclear.

In addition to this, patients with chronic adrenal deficiency are also developing hyponatremia, a condition sometimes referred to as Washerman syndrome. Although it is seen very occasionally, it can be managed with Raja Yapana Basti and Madiphala Rasayana.

**Hyponatremia:**

- Mild: 130- 134 mmol /L
- Moderate:125-129 mmol/L
- Profound<125 mmol/L

## Pittaja Trishna - Hypokalemia

मूर्च्छाप्रलापारुचिवक्त्रशोषाः पीतेक्षणत्वं प्रततश्च दाहः।
शीताभिकाङ्क्षा मुखतिक्तता च पित्तात्मिकायां परिधूपनं च।।(Su.Ut 48/9)

It exhibits nearly all the features of hypokalemia. Reduced potassium levels are the precise clinical symptom of Pittaja Trishna. When potassium levels drop to critical levels, below 3 mmol /L, they must be replenished with potassium supplements. Potassium replacement is not a critical issue; it can be administered intravenously or orally.

While I wouldn't claim extensive experience with Ayurvedic formulations in cases of hypokalemia, some patients with persistent hypokalemia have shown improvement when Sariva is administered alongside potassium. This improvement relates to the signs of Raktadushti (blood impurities). Sariva is particularly effective in Pittaja and Raktaja vyadhi. In rare cases, despite prolonged oral potassium supplementation, some patients continue to experience hypokalemia. In such instances, Sarivadyasava, combined with potassium supplements, proves beneficial. However, in typical cases of hypokalemia, oral potassium supplements are inexpensive, readily available, and easy to administer.

## Kaphaja Trishna– Dehydration

कफावृताभ्यामनिलानलाभ्यां कफोऽपि शुष्कः प्रकरोति तृष्णाम् ।
निद्रा गुरुत्वं मधुरास्यता च तयाऽर्दितः शुष्यति चातिमात्रम् ।।
कण्ठोपलेपो मुखपिच्छिलत्वं शीतज्वरश्छर्दिररोचकश्च ।
कफात्मिकायां गुरुगात्रता च शाखासु शोफस्त्वविपाक एव ।
एतानि रूपाणि भवन्ति तस्यां तयाऽर्दितः काङ्क्षति नाति चाम्भः ।। (Su.Ut. 48/10,11)

I have no experience of use of Ayurvedic treatment in this condition as the number of patients presenting with these clinical symptoms is extremely small.

# Udara

रुद्ध्वा स्वेदाम्बुवाहीनि दोषाः स्रोतांसि सञ्चिताः ।
प्राणाग्न्यपानान् सन्दूष्य जनयन्त्युदरं नृणाम् ।।
कुक्षेराध्मानमाटोपः शोफः पादकरस्य च ।
मन्दोऽग्निः श्लक्ष्णगण्डत्वं काश्र्यं चोदरलक्षणम् ।।
पृथग्दोषैः समस्तैश्च प्लीहबद्धक्षतोदकैः ।
सम्भवन्त्युदराण्यष्टौ तेषां लिङ्गं पृथक् शृणु ।। (Ch.Chi. 13 /20,21,22)

Basically, Ambuvaha Srotas is involved in development of Udara. Among all abdominal Udara it is mainly the Jalodara where Udakvaha srotas is involved.

## Vataja Udara – Intestinal colic:

सङ्गृह्य पार्श्वोदरपृष्ठनाभीर्यद्वर्धते कृष्णसिरावनद्धम्।।
सशूलमानाहवदुग्रशब्दं सतोदभेदं पवनात्मकं तत्। (Su. Ni. 7/8,9)

Unspecified abdominal pain is a standard clinical diagnosis recognized by the International Classification of Diseases, ICD 10, under R10.9. It is a common issue, accounting for approximately 30% in children and 10% in adults. Vataja Udara is not an undiagnosed condition; rather, it refers to cases where persistent abdominal pain remains unexplained even after thorough investigations. In many instances, such cases are deemed psychosomatic.[1]

**Treatment:**

- Nabhivati
- Jeerakadyarishta with Ajamoda Arka

Unspecified abdominal pain is classified as Vataja Udara only after ruling out all other potential causes of abdominal pain. Once a specific condition is identified, treatment can be tailored accordingly.

## Pittaja Udara – Peritonitis

यच्चोषतृष्णाज्वरदाहयुक्तं पीतं सिरा भान्ति च यत्र पीताः।।
पीताक्षिविण्मूत्रनखाननस्य पित्तोदरं तत्त्वचिराभिवृद्धि। (Su. Ni. 7/9,10)

The signs described in texts for Pittaja Udara indeed resemble those of peritonitis. However, based on my experience, peritonitis cannot be managed solely with Ayurvedic treatment. In fact, there is virtually no scope for Ayurvedic treatment in cases of peritonitis.

## Kaphaja Udara – Intra-abdominal masses and lesions:

यच्छीतलं शुक्लसिरावनद्धं गुरु स्थिरं शुक्लनखाननस्य।।
स्निग्धं महच्छोफयुतं ससादं कफोदरं तत्तु चिराभिवृद्धि।(Su,Ni 7/10,11)

1 Williams, N., Jackson, D., Lambert, P. C., & Johnstone, J. M. (1999). Incidence of non-specific abdominal pain in children during school term: population survey based on discharge diagnoses. BMJ (Clinical research ed.), 318(7196), 1455.

Intra-abdominal masses and lesions require thorough evaluation and a management protocol in contemporary medicine. From an Ayurvedic perspective, there may not be much scope for treatment in these cases.

## Dooshi Udara – Nonspecific mesenteric lymphadenitis

स्त्रियोऽन्नपानं नखरोममूत्रविडार्तवैर्युक्तमसाधुवृत्ताः ।।
यस्मै प्रयच्छन्त्यरयो गरांश्च दुष्टाम्बुदूषीविषसेवनाद्वा ।
तेनाशु रक्तं कुपिताश्च दोषाः कुर्वन्ति घोरं जठरं त्रिलिङ्गम् ।।
तच्छीतवाताभ्रसमुद्भवेषु विशेषतः कुप्यति दह्यते च स चातुरो मूर्च्छति सम्प्रसक्तं पाण्डुः कृशः शुष्यति तृष्णया च ।।
प्रकीर्तितं दूष्युदरं तु घोरं ... । (Su. Ni 7/11,12,13,14)

This condition appears to be related to cumulative toxicity and is akin to chronic colitis. Diagnosis often requires comprehensive investigational tools. In cases resembling non-specific lymphadenitis, which can mimic appendicitis without tenderness at the iliac fossa, my usual prescription aims at addressing these symptoms. It is worth noting that surgery may not be necessary and could potentially complicate matters further.

**Prescription:**

- Agnitundi Vati
- Anandabhairava Rasa
- Jeerkadyarishta

## Pleehodara– Splenomegaly

It is a complex issue for which causes could be many and thorough clinical evaluation is necessary. Virtually we have very little scope for Ayurveda management in such cases.

## Baddha gudodara – Intestinal obstruction

प्लीहोदरं कीर्तयतो निबोध ।
विदाह्यभिष्यन्दिरतस्य जन्तोः प्रदुष्टमत्यर्थमसृक् कफश्च ।।
प्लीहाभिवृद्धिं सततं करोति प्लीहोदरं तत् प्रवदन्ति तज्ज्ञाः ।
वामे च पार्श्वे परिवृद्धिमेति विशेषतः सीदति चातुरोऽत्र ।।
मन्दज्वराग्निः कफपित्तलिङ्गैरुपद्रुतः क्षीणबलोऽतिपाण्डुः । (Su.Ni 7/14,15,16)

It requires a surgical evaluation or conservative management may be needed.

## Parisravi Udara – Visceral perforation

ततः परिस्राव्युदरं निबोध।
शल्यं यदन्नोपहितं तदन्त्रं भिनत्ति यस्यागतमन्यथा वा।।
तस्मात् स्रुतोऽन्त्रात् सलिलप्रकाशः स्रावः स्रवेद्वै गुदतस्तु भूयः।
नाभेरधश्चोदरमेति वृद्धिं निस्तुद्यतेऽतीव विदह्यते च।।
एतत् परिस्राव्युदरं प्रदिष्टं...। (Su. Ni 7/19,20,21)

It is a surgical emergency condition.

## Jalodara–Ascitis

दकोदरं कीर्तयतो निबोध।
यः स्नेहपीतोऽप्यनुवासितो वा वान्तो विरिक्तोऽप्यथवा निरूढः।।
पिबेज्जलं शीतलमाशु तस्य स्रोतांसि दुष्यन्ति हि तद्वहानि।
स्नेहोपलिप्तेष्वथवाऽपि तेषु दकोदरं पूर्ववदभ्युपैति।।
स्निग्धं महत् सम्परिवृत्तनाभि भृशोन्नतं पूर्णमिवाम्बुना च।
यथा दृतिः क्षुभ्यति कम्पते च शब्दायते चापि दकोदरं तत्।। (Su. Ni. 7/21,22,23)

Huge variety of causes are seen and a thorough evaluation is necessary. A list of causes of ascites is given below, which may not be complete. Anyhow, I have made this category based on the role of Ayurvedic treatment in managing the same.

अन्ते सलिलभावं हि भजन्ते जठराणि तु।
सर्वाण्येव परीपाकात्तदा तानि विवर्जयेत्।। (Su. Ni. 7/25)

**Summarized list of common causes of ascites**

| Less scope for Ayurvedic management | Good scope for Ayurvedic management |
|---|---|
| Acute Liver Failure | Alcoholic Hepatitis |
| Biliary Disease | Cirrhosis |
| Budd-Chiari Syndrome | Dilated Cardiomyopathy |
| Familial Mediterranean Fever | Nephrotic Syndrome |
| Hepatocellular Adenoma | Viral Hepatitis |
| Hepatorenal Syndrome | |
| Hepatocellular Adenoma | |
| Portal Hypertension | |
| Primary Biliary Cirrhosis | |
| Protein-Losing Enteropathy | |
| Restrictive Cardiomyopathy | |

**Ayurvedic management of particular conditions is given in the following table:**

| Hepatic pathology Pittaja, Pittakapahaja | Nephrotic syndrome Kaphaja | Cardiomyopathy Vatakaphaja |
|---|---|---|
| Arogyavardhini Rasa<br>Punarnava Mandoora<br>Kumaryasava<br>Gomutra +Triphala choorna | Chandraprabha Vati<br>Mrityunjaya Rasa/Punarnava Mandoora<br>Amritarishta /Punarnavasava<br>Saptaparna Kwatha | Prabhakara vati<br>Punarnava Mandoora<br>Arjunarishta / Punarnavasava |

The use of high-quality Gomutra, or cow urine, can yield remarkable results in managing ascites, particularly in patients with alcoholic hepatitis. However, it is important to note that Gomutra arka, a distilled form of cow urine, may not produce the same outcomes.

When prescribing Gomutra, I always ensure that the patient is closely monitored in the ward for at least one week to detect any signs of peritonitis. Peritonitis, if developed in ascites patients, can be extremely serious and potentially fatal, necessitating careful observation. I normally prescribe Gomutra in a dose of 40 ml in the morning once a day and Triphala Churna 10 g twice daily after food.

While some patients may not develop peritonitis and may continue Gomutra treatment for an extended period, others may experience dramatic improvements in their condition. I have witnessed remarkable transformations in patients' clinical presentations and overall health, with sustained benefits lasting for years, and sometimes even a lifetime.

It is important to acknowledge that complete cure may not be achievable in all cases, but a combination of Arogyavardhini Rasa, Punarnava mandora, and Kumaryasava has shown promising results in selected patients.

However, it is crucial to exercise caution, as some patients may experience worsening symptoms shortly after starting Gomutra treatment. Therefore, close monitoring and prompt cessation of Gomutra in case of any adverse reactions or symptoms suggestive of peritonitis are essential.

## Nephrotic syndrome

Thorough treatment of Nephrotic syndrome has been already discussed in previous section. Brief details are provided in the above table.

## Cardiomyopathy

In such patients, primary contemporary drugs have to be maintained. Along with that, I prescribe the following:

- Prabhakara Vati
- Poonarnava Mandoora

If the patient is having severe dyspnoea, I prefer Arjunarishta and if patient has oedema, I prefer Punarnavasava.

Patient can be managed satisfactorily with these drugs but other primary drugs have to be maintained.

Chapter

4

# Hypertension and Hridroga

I consider hypertension as a disease of ‘Rasavah Srotas’. The concept of this disease itself is a unique feature.

## Historical timeline of hypertension:

Before the invention of the cuff Sphygmomanometer in 1896, the measurement of blood pressure posed a significant challenge. While there was an understanding of a circulating force within the body that generated pressure, it couldn't be accurately quantified. Prior to this invention, studies on blood pressure were primarily conducted in experimental animals in laboratory settings, where invasive methods such as inserting a tube into the carotid artery were employed to measure pressure. However, these methods were not feasible for clinical application and were mainly used for research purposes. As a result, blood pressure was not considered to have significant clinical importance until the development of the cuff Sphygmomanometer, which revolutionized the measurement and understanding of blood pressure in medical practice.

Hypertension, or high blood pressure, has not always been recognized as the serious health condition, but it is considered to be very important today. An illustrative example is the case of US President Franklin D. Roosevelt, whose physician deemed him healthy despite recording a blood pressure of approximately 220/120 mm Hg. This high blood pressure was not considered a cause for concern at the time.

However, a few years later, during a meeting at Yalta, Winston Churchill's personal physician made a note in his diary indicating that President Roosevelt

showed signs of "hardening of the arteries" disease and had only a few months to live. Tragically, this prediction proved accurate when President Roosevelt suffered a fatal haemorrhagic stroke just two months later, shedding light on the deadly potential of hypertension.

This historical anecdote highlights how perceptions of hypertension have evolved over time, from being overlooked or dismissed to being recognized as a significant risk factor for serious health complications, including stroke and heart disease.

The study of blood pressure gained momentum following the accidental death of President Roosevelt. In 1948, the Framingham Heart Study was initiated, marking a significant milestone in the investigation of hypertension and its implications for cardiovascular health. The Framingham Study, named after the town in Massachusetts where it was conducted, established a crucial framework for assessing blood pressure and its relationship to heart disease and stroke.

To this day, the Framingham Heart Study remains a pivotal research endeavour, serving as a central hub for collecting and analysing data on cardiovascular risk factors, including blood pressure. Its findings have informed medical guidelines and public health initiatives worldwide, shaping our understanding of hypertension and guiding efforts to prevent and manage cardiovascular disease. A lot of controversy still exists regarding the normal blood pressure. A general standardized guideline on the normal values were announced throughout globally. [1]

The definition of normal blood pressure has indeed evolved over time, reflecting advances in medical knowledge and changes in diagnostic criteria. The 2017 American Heart Association guidelines categorize a blood pressure reading of 120/80 mmHg as normal. However, it is common for individuals over the age of 40 years to have blood pressure readings above this threshold, especially in certain populations like those in India.

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*1 Chang, A. R., Lóser, M., Malhotra, R., & Appel, L. J. (2019). Blood Pressure Goals in Patients with CKD: A Review of Evidence and Guidelines. Clinical journal of the American Society of Nephrology: CJASN, 14(1), 161–169. https://doi.org/10.2215/CJN.07440618*

This discrepancy raises questions about the appropriateness of labelling a large portion of the population as hypertensive based solely on their blood pressure readings. Additionally, there is ongoing debate within the medical community about whether isolated increases in systolic or diastolic pressure should be considered indicative of hypertension.

These considerations underscore the importance of individualized assessment and management of blood pressure, taking into account factors such as age, overall health status, and risk factors for cardiovascular disease. It is essential for clinicians to interpret blood pressure readings in the context of each patient's unique circumstances to provide appropriate care and guidance. However, it is universally agreed that a pressure of above 140/90 mm of Hg must be essentially categorized as hypertension.[1]

Recording of the blood pressure is also important. The blood pressure can vary significantly throughout the day. Hence, an ambulatory pressure measurement is required. The standard protocol is minimum three readings should be recorded in resting condition and the three readings should be recorded in different setups, because there is a concept called whitecoat hypertension. Whitecoat hypertension is an established term for fluctuation of pressure either because of the doctor, environment etc. Multiple factors can produce a significant variation in blood pressure. Hence it was decided to take a minimum of three recordings in different setups and the average has to be calculated. In the absence any symptom, pressure level of about 140/90 mm of Hg can be considered normal. If the patient has symptoms or associated complications, then it should be considered abnormal. Indian physicians follow the American standards and consider 120/80 mm of Hg as normal blood pressure, and most of the patients being treated for hypertension, target pressure is 120/80 mm Hg.[2]

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*1 Burnier, M., Oparil, S., Narkiewicz, K., & Kjeldsen, S. E. (2018). New 2017 American Heart Association and American College of Cardiology guideline for hypertension in the adults: major paradigm shifts, but will they help to fight against the hypertension disease burden? Blood pressure, 27(2), 62–65. https://doi.org/10.1080/08037051.2018.1430504*

*2 Bakris, G., Ali, W., & Parati, G. (2019). ACC/AHA Versus ESC/ESH on Hypertension Guidelines: JACC Guideline Comparison. Journal of the American College of Cardiology, 73(23), 3018–3026. https://doi.org/10.1016/j.jacc.2019.03.507*

## Antihypertensive drugs - Market prediction

After observing the pattern of the antihypertensive drug market, it was noted that each revision of the guidelines correlated with a significant increase in the total market value of antihypertensive drugs. By 2021, this market was predicted to reach a staggering 3.5 trillion dollars globally. The implications of this trend are clear, as changes in guidelines directly influence prescribing practices and, consequently, market demand for antihypertensive medications.

This phenomenon raises important questions about the interplay between medical guidelines and the pharmaceutical industry. While stricter guidelines aim to improve patient outcomes by encouraging more proactive management of hypertension, they also drive up the demand for medications, benefiting the pharmaceutical market. The ethical considerations and potential conflicts of interest in this dynamic warrant careful scrutiny.

Ultimately, the interpretation of these observations and the conclusions drawn from them are subjective and left to individual perception.[1]

# High blood pressure worldwide statistics

According to the World Health Organization (WHO), the highest incidence of hypertension is observed in Africa, followed closely by South Asia. These regions statistically show a significant prevalence of hypertension, highlighting the need for targeted public health interventions and awareness campaigns to manage and prevent this condition effectively. [2]

Hypertension, often referred to as the "silent killer," can go unnoticed for years because many people with high blood pressure may not experience any symptoms. Despite the lack of symptoms, hypertension poses significant health risks and can reduce life expectancy. Even in patients with moderate hypertension, there is an increased risk of complications such as coronary artery disease and cerebrovascular accidents (strokes). These complications

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*1 https://www.industryarc.com/Report/15599/antihypertensive-drugs-market.html*

*2 Itse, Olaoye & Saliluddin, Suhainizam & Ismail, Suriani & Zoakah, Ayuba & Jacdonmi, Gbubemi. (2016). ISSN 2347-954X (Print) The Role of Epidemiological Principles in the Prevention and Control of Hypertension: A Review. Scholars Journal of Applied Medical Sciences. 4. 632-639. Life expectancy in hypertensives*

can lead to severe health issues and are a major cause of morbidity and mortality worldwide. Therefore, regular monitoring and management of blood pressure are crucial to mitigate these risks and improve long-term health outcomes. Studies have shown that among people with high blood pressure, life expectancy is significantly reduced.[1]

## Hypertension and Cardiovascular mortality:

Hypertension is a well-documented contributor to cardiovascular mortality and sudden death, primarily due to its role in precipitating complications like cerebrovascular accidents (strokes) and coronary artery disease. The primary goal of treating hypertension is to prevent such complications.

In cases of low to moderate hypertension, the risk of immediate, severe complications is relatively low. This often leads to a debate about the necessity and extent of treatment for mild blood pressure elevations. However, even mild hypertension can lead to significant long-term health issues if left unmanaged. Therefore, it is important to monitor and manage blood pressure to prevent the gradual progression to more severe stages of hypertension and associated complications.

For cases of severe or terminal hypertension, the risks are much higher and more immediate. In these instances, aggressive and preventive measures are clearly justified to mitigate the significant risk of life-threatening events such as heart attacks, strokes, and organ damage. Effective management in such cases is crucial to reduce morbidity and mortality.

Overall, while the immediate risk may vary between mild and severe hypertension, the long-term benefits of maintaining blood pressure within a normal range underscore the importance of treatment and lifestyle modifications across all levels of hypertension.[2]

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*1 Franco, O. H., Peeters, A., Bonneux, L., & de Laet, C. (2005). Blood pressure in adulthood and life expectancy with cardiovascular disease in men and women: life course analysis. Hypertension (Dallas, Tex.: 1979), 46(2), 280–286. https://doi.org/10.1161/01.HYP.0000173433.67426.9b*

[2] Gupta, R., Gaur, K., & S Ram, C. V. (2019). Emerging trends in hypertension epidemiology in India. Journal of human hypertension, 33(8), 575–587. https://doi.org/10.1038/s41371-018-0117-3

## End organ damages in hypertension:

Major complications of hypertension are multi-organ failure or end organ failure conditions affecting the brain, heart, or kidneys. In end organ failure conditions, the difference between normal and high blood pressure incidences is not very significant when the blood pressure is within moderate range. But when it is very high the difference is notable.[1]

## Hypertension and coronary risk factors:

The referenced study by KM, Wilson PWF, Odell PM, and Kannel WB, published in Circulation in 1991, presents a comprehensive coronary risk profile, focusing on diastolic and systolic blood pressure over several years. The study identifies key factors influencing blood pressure, particularly the impact of cholesterol levels, high-density lipoprotein (HDL) levels, smoking, and other variables on the risk of hypertension. The study emphasizes the crucial role of certain habits and lifestyle factors in influencing blood pressure levels. Notably, if individuals maintain certain habits, like refraining from smoking and adopting a healthy diet, the likelihood of developing hypertension is reduced, and blood pressure may remain within the normal range. Conversely, the study highlights that habitual smoking and consuming an unhealthy diet can contribute to an increased incidence of elevated blood pressure. Therefore, the study underscores the significance of lifestyle choices and their direct impact on blood pressure, emphasizing the potential of preventive measures to mitigate the risk of hypertension.[2]

The referenced study, conducted by Dorairaj Prabhakaran et al. and published in the Journal of the American College of Cardiology in July 2018, investigates the prevalence and factors contributing to hypertension in India, the United States, and globally. The study spans from 1960 to 2016. The analysis reveals a notable shift in factors influencing hypertension over time. Examining the data from 2016 indicates that dietetic factors are more pronounced as a cause of hypertension. In the U.S., there is a historical transition, with dietetic factors being more significant in earlier stages (2016 conditions) but now being

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[1] Kyada, P., Jadhav, K., Biswas, T. K., Mehta, V., & Zaman, S. (2017). End Organ Damage in Hypertensive Geriatric Age Group: A Cross Sectional Study. Journal of Medical Research and Innovation, 1(3), 10-16. https://doi.org/10.15419/jmri.75

[2] Anderson, K. M., Wilson, P. W., Odell, P. M., & Kannel, W. B. (1991). An updated coronary risk profile. A statement for health professionals. Circulation, 83(1), 356–362. https://doi.org/10.1161/01.cir.83.1.356

regulated. The study suggests that in the U.S., there has been a shift from reliance on medications to regulation of dietetic factors in order to control hypertension. In contrast, the study highlights a concerning finding for India in 2016. Dietetic factors still play a predominant role in causing hypertension, and the reliance on drugs for hypertension control is a subject of controversy. This underscores the need for increased awareness and consideration of various factors in hypertension management, particularly in the context of dietary practices in India. Overall, the study emphasizes the importance of understanding regional variations and evolving trends in addressing hypertension and the crucial role that dietetic factors play in this health issue. [1]

## Dyslipidaemia - cause of hypertension:

**Era of Cholesterol**

- 1910 Human atherosclerotic plaques contain cholesterol
- 1913 High cholesterol diet causes atherosclerosis in rabbits
- 1919 Heart attacks recognized in humans
- 1933 Feedback inhibition of cholesterol synthesis demonstrated
- 1938 Familial hypercholesterolemia described
- 1950 Cholesterol biosynthetic pathway elucidated
- 1951 High fat diets raise plasma cholesterol in humans
- 1953 Risk factor concept advanced

**Era of LDL**

- 1955 LDL (Low Density Lipoprotein) identified as risk factor for CHD
- 1973 LDL receptor discovered
- 1976 HMG CoA reductase inhibitors (statins) discovered
- 1981 Statins increase LDL receptors in vivo
- 1987 First Statin (Mevacor) approved for human use
- 1994 Statins decrease heart attacks and prolong life
- 1997 SREBP (sterol regulatory element-binding protein) pathway elucidated

[1] Prabhakaran, D., Singh, K., Roth, G. A., Banerjee, A., Pagidipati, N. J., & Huffman, M. D. (2018). Cardiovascular Diseases in India Compared With the United States. Journal of the American College of Cardiology, 72(1), 79–95. https://doi.org/10.1016/j.jacc.2018.04.042)

- 2006 PCSK9 (proprotein convertase subtilisin/kexin type 9): Destroyer of LDL receptor
- 2012 LDL –C risk factor

There are many of theories on pathogenesis hypertension. One of the most controversial and troublesome theories is the theory of dyslipidaemia, i.e. abnormality of fat metabolism being responsible for hypertension. The whole concept has changed from 1980 to 2013, and the latest theory is suggesting that is only low-density lipids are responsible for hypertension. A significant number of people who have normal lipid levels have hypertension. A significant number of people who have an abnormally high lipid profile may not be hypertensive and may not have any complications. The whole picture has been changed from simple cholesterol to different varieties of lipids throughout.

## Stress as a cause of hypertension:

Physical and psychological stress are often cited as potential causes of hypertension. While some believe that individuals with a short temper are more likely to develop hypertension, studies suggest otherwise. Interestingly, those who suppress their emotions and internalize stress may be at a higher risk of hypertension. However, the statistical significance of this association remains uncertain. [1]

## Oxidative stress - hypertension:

Another theory gaining importance is oxidative stress-induced hypertension. This theory posits that free radicals generated during metabolism can damage the endothelial cells lining the blood vessels, leading to hypertension. Additionally, oxidative stress is linked to aging, suggesting that hypertension may accelerate the aging process.[2]

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[1] Abel, J. L., & Larkin, K. T. (1991). Assessment of cardiovascular reactivity across laboratory and natural settings. Journal of Psychosomatic Research, 35(2–3), 365–373. https://doi.org/10.1016/0022-3999(91)90091-2

[2] Massaro, M., Scoditti, E., Carluccio, M. A., & De Caterina, R. (2019). Oxidative stress and vascular stiffness in hypertension: A renewed interest for antioxidant therapies? Vascular Pharmacology, 116, 45–50. *https://doi.org/10.1016/j.vph.2019.03.004*

# Secondary hypertension – Prevalence:

Secondary hypertension, caused by underlying pathologies in organs like the kidneys or thyroid, presents a distinct challenge compared to primary hypertension. Although less common, it requires a different treatment approach tailored to address the underlying condition. When managing a hypertensive patient, it is crucial to assess for any organ damage or dysfunction that could be contributing to secondary hypertension. In secondary hypertension, the whole approach to the treatment will be different, and the coexisting disease also needs to be treated.[1] Secondary hypertension can arise from various medications commonly prescribed in clinical practice. Drugs such as estrogen medications, non-steroidal anti-inflammatory drugs (NSAIDs), certain psychiatric medications, and sympathomimetic drugs used in respiratory disorders are known culprits. Surprisingly, even some herbal remedies have been associated with hypertension; for example, studies have shown that garlic supplements (Lashuna) can elevate blood pressure. Another example is liquorice extract, which is banned in food substances in the USA due to its hypertensive effects. However, Madhuyashti Choorna, a herbal remedy, is actually used in the treatment of hypertension. When assessing secondary hypertension, it is imperative to not only consider organic damage but also gather a detailed history of the patient's medication use. Among our patients, NSAIDs are one of the most commonly implicated medications. Their widespread availability over the counter has led to frequent usage, akin to salt in food. [2]

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*[1] Baruah, M. P., Kalra, S., & Unnikrishnan, A. G. (2011). Endocrine hypertension: Changing paradigm in the new millennium. Indian journal of endocrinology and metabolism, 15 Suppl 4(Suppl4), S275–S278. https://doi.org/10.4103/2230-8210.86858*

*[2] Chobanian, A. V., Bakris, G. L., Black, H. R., Cushman, W. C., Green, L. A., Izzo, J. L., Jr, Jones, D. W., Materson, B. J., Oparil, S., Wright, J. T., Jr, Roccella, E. J., Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure. National Heart, Lung, and Blood Institute, & National High Blood Pressure Education Program Coordinating Committee (2003). Seventh report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure. Hypertension (Dallas, Tex : 1979), 42(6), 1206–1252. https://doi.org/10.1161/01.HYP.0000107251.49515.c2)*

## Malignant Hypertension:

Malignant hypertension is characterized by a sudden and severe increase in blood pressure, often without a clear underlying cause. This rapid rise in blood pressure can lead to damage in various tissues and organs. Acute emergencies associated with malignant hypertension can result in serious complications such as retinal damage and myocardial pathology. When a patient presents with hypertension, it is crucial to determine whether they are experiencing malignant hypertension. If so, it constitutes an acute emergency that requires immediate attention and management.

**15 things that increase Blood Pressure:**

These are not very important things. I have taken it from a popular blog site that gives an idea of the causes of hypertension[1]

- Your doctor
- Added sugar
- Loneliness
- Sleep apnoea
- Not enough potassium
- Pain
- Herbal supplements
- Thyroid problems
- Retained urine
- NSAIDs [Drugs]
- Nasal decongestants
- Dehydration
- Hormonal birth control
- Quarrelling
- Antidepressants

## The 2017 High Blood Pressure Guideline:

The latest guidelines for managing hypertension, established by the AHA, recommend non-pharmacological interventions for individuals with normal blood pressure who are at risk of developing hypertension. These interventions focus on promoting optimal lifestyle habits. For individuals with elevated blood pressure, defined as systolic pressure between 120 and 129 mmHg and diastolic pressure below 80 mmHg, the initial recommendation is lifestyle modifications without medication. Only if blood pressure remains elevated after lifestyle interventions should pharmacological treatment be considered.[2]

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[1] *https://www.webmd.com/hypertension-high-blood-pressure/ss/slideshow-high-blood-pressure-effects*

[2] *Risk Reduction Through Better Management Nov 15, 2017 Cardiology Magazine*

In Stage-I hypertension, pharmacological intervention is not typically recommended. It is reserved for Stage-II hypertension, where complications are present, or in cases of Stage-III or malignant hypertension. Direct pharmacological intervention is suggested only when complications have already developed or in severe hypertension cases. However, for Stage-I hypertension, non-pharmacological interventions are usually prioritized, as recommended by global guidelines.

The World Health Organization (WHO) recommends several proven non-pharmacological interventions for preventing hypertension. Regular exercise can lower blood pressure by approximately 10 mmHg, while adopting the DASH (Dietary Approaches to Stop Hypertension) diet, which is universally recognized, may reduce blood pressure by around 11 mmHg. Addressing psychological stress through stress management techniques can also contribute to optimal blood pressure levels. Lifestyle modifications such as regulating sleep patterns and incorporating periods of rest are also important. Additionally, avoiding diets high in spices, sugar, and salt can help prevent hypertension.

## DASH (Dietary Approaches to Stop Hypertension) diet approach to stop hypertension:

This dietary advice is universally recognized and advocated by nutritionists worldwide. It emphasizes the consumption of green vegetables, fruits, low-fat dairy products, and lean meats while limiting fats and sweets. Specifically, low-fat dairy products are recommended, and when consuming meat, lean options with minimal fat content are preferred. Additionally, incorporating nuts, seeds, and legumes into the diet is encouraged for their nutritional benefits. However, fats and sweets should be consumed sparingly, ideally only 2-4 times per week.[1]

# Ayurvedic view on hypertension:

It is intriguing to consider how ancient Ayurvedic texts like those of Sushruta and Charaka addressed health conditions without the aid of modern diagnostic tools like the sphygmomanometer. While these texts may not directly mention hypertension as we understand it today, they likely described similar conditions under different names and concepts. Despite the lack of specific terminology, Ayurvedic literature contains valuable insights into managing conditions that

[1] *https://www.nhlbi.nih.gov/education/dash-eating-plan*

align with modern understandings of hypertension. Despite efforts in numerous conferences, defining hypertension through Ayurvedic principles remains a complex and ongoing endeavours.

- Dhamani Prapurana
- Raktagata Vata
- Siragata Vata
- Avrita Vataroga
- Vyana Bala
- Dhamani Pratichaya
- Raktavata
- Uccharaktachapa
- Raktavrita Vata
- Pranavrita Vyana
- Vyanavrita Prana
- Shleshmavrita Vyan

These are all the different varieties, different terms used by different committees and by different authors.

## Ayurvedic concept of Hypertension:

> तत्र प्राणो मूर्ध्न्यवस्थितः कण्ठोरश्चरो
> बुद्धीन्द्रियहृदयमनोधमनीधारणष्ठीवनक्षवथूद्गार
> प्रश्वासोच्छ्वासान्नप्रवेशादिक्रियः । (A .S . Su 20/6)

> सप्त सिराशतानि भवन्ति; याभिरिदं शरीरमाराम इव जलहारिणीभिः केदार इव च कुल्याभिरुपस्निह्यतेऽनुगृह्यते चाकुञ्चनप्रसारणादिभिर्विशेषैः; द्रुमपत्रसेवनीनामिव तासां प्रतानाः; तासां नाभिर्मूलं, ततश्च प्रसरन्त्यूर्ध्वमधस्तिर्यक् च । । (Su. Sha.7/3)

The quotation from Ashtanga Sangraha states that Prana Vata has the function of Dhamani Dharana, which involves the sustenance of circulatory vessels. Therefore, the maintenance of a healthy condition of the circulatory vessels is attributed to Prana Vata. According to Acharya Sushruta, the functions of Sira reflect the concept of blood circulation. This idea of blood circulation, commonly attributed to William Harvey, was described much earlier by Acharya Sushruta.

The circulation functions described by Acharya Sushruta include the flow of fluid into the tissues, producing nourishment, and the return of the same fluid, resembling a garden being nourished by water channels or streams of vessels returning to a river or pond. The concept of a circular flow is evident in Ayurveda, though it is not as globally recognized as Harvey's description. It is important to acknowledge both perspectives, and while Harvey deserves credit, the value of Acharya Sushruta's contributions should also be highlighted whenever possible. Additionally, Acharya Sushruta identified pulsations occurring in the vessels as one of the important functions of Siras.

व्यानेन रसधातुर्हि विक्षेपोचितकर्मणा।
युगत्पसर्वतोऽजस्रं देहे विक्षिप्यते सदा।।
क्षिप्यमाणः खवैगुण्याद्रसः सज्जति यत्र सः।
तस्मिन्विकारं कुरुते खे वर्षमिव तोयदः।। (A.H.Sha 68,69)

Acharya Vagbhata's insights in the Ashtanga Hridaya provide further depth to the understanding of circulatory conditions in Ayurveda. He delineates the specific functions of key elements involved in circulation. According to his teachings, maintaining the optimal pressure of circulation is attributed to Vyana Vata, highlighting the significance of regulating pressure levels for overall health. Additionally, Ayurveda underscores the importance of two essential components: Prana Vata, tasked with vessel maintenance (known as Dhamani Dharana), and Vyana Vata, which is responsible for ensuring elasticity in the vessels. These principles emphasize the holistic approach of Ayurveda to circulatory health, focusing on both structural integrity and functional dynamics.

From an Ayurvedic perspective, peripheral resistance and hydrostatic pressure are identified as significant factors. Vessels contribute to elasticity or resistance, while the heart manages the hydrostatic pressure. The interplay between these factors can lead to hypertension. Although Ayurveda does not explicitly mention pressure measurements, it addresses the value of pressure and deviations leading to abnormalities termed Khavaigunya.

Ayurveda suggests that structural abnormalities can result in variations in pressure and circulation, leading to diseases at specific levels or multi-organ failure. While modern medicine provides more detailed theories and statistical data, the fundamental concepts align. Ayurveda's ancient wisdom holds insights into circulatory conditions.

While historical credit for understanding hypertension often goes to Egyptian history, mentioning rigid vessels, Ayurveda's contributions should be globally recognized. There is a need to integrate Ayurvedic references whenever historical discussions on circulation arise. Whether or not these ancient insights have practical value today is a secondary consideration; however, setting the historical records straight is essential. Ayurveda's knowledge about circulatory conditions and abnormalities should be acknowledged and appreciated.

## My perception of hypertension

आवृता वायवोऽज्ञाता ज्ञाता वा वत्सरं स्थिताः।।
प्रयत्नेनापि दुःसाध्या भवेयुर्वाऽनुपक्रमाः। (A.H.Ni.16/57)

These are purely my considerations and are open to debate and controversy. In my practice, when I prescribe medicines and select treatments for hypertension management, I view it as a variation of Anyonya avarana. Prana and Vyana, having Anyonya avarana, are evident factors contributing to hypertension conditions. Acharya Vagbhata explicitly mentioned that Avarana can remain silent for many years and then lead to an incurable condition. Hypertension is often referred to as a "silent killer," and Acharya Vagbhata's description aligns with this concept of Avruta Vata, remaining silent and unrecognized for a year, eventually manifesting as an incurable disease.

**Key points**

- Symptomatic Hypertension includes the Avarana varieties.
- Major complication of hypertension is Hridroga.
- Jara (Senile changes) are the sequel of hypertension

हृद्रोगो विद्रधिः प्लीहा गुल्मोऽतीसार एव च ।।
भवन्त्युपद्रवास्तेषामावृतानामुपेक्षणात् ।
तस्मादावरणं वैद्यः पवनस्योपलक्षयेत् ।। (Ch .Chi 28/236,237)

The complications arising from hypertension are well-documented, particularly cardiovascular pathologies, which are regarded as significant outcomes of hypertensive conditions. Acharya Vagbhata's teachings suggest that failure to recognize or address Avarana can lead to complications such as Hridroga, Vidhradhi, and others. Hence, hypertension can be considered a manifestation of Anyonya Avarana, where obstruction plays a central role in precipitating adverse health effects.

**Spectrum of hypertension patients in practice**

| | |
|---|---|
| Newly diagnosed primary asymptomatic hypertension | 15% |
| Newly diagnosed symptomatic hypertensives | 15% |
| On anti hypertensives, stable pressure status opting to change over to Ayurvedic management | 07% |
| On antihypertensives not stabilized opting for Ayurvedic management | 05% |
| On antihypertensives and obvious adverse effects of drugs | 05% |
| Acute complications like CVA, Coronary ischaemia [Malignant hypertension] | 10% |
| CVA /CAD patients with stabilized blood pressure | 40% |
| Secondary hypertension conditions | 03% |

The percentages shown in the table are not exact; they represent rough average percentages of various patients who come to us. In our current situation, many of these facts cannot be overlooked. While we do receive a few patients who are newly diagnosed with hypertension, the majority already have a diagnosis and are undergoing treatment. Some patients are initially diagnosed by other healthcare providers but seek Ayurvedic treatment due to concerns or personal preferences.

I discuss this issue because we need a strategy that suits each of these contexts. Many patients are already on antihypertensive drugs, stable, and otherwise normal. Occasionally, they express an interest in transitioning from contemporary medicine to Ayurvedic medicine. Some patients are on antihypertensive medication but still have unstable hypertension, wondering if Ayurvedic medicine can offer help. There are also patients already taking antihypertensive drugs but seeking Ayurveda for unrelated issues, such as arthritis. Another category includes very few patients with acute complications like cerebrovascular accidents, which are more common in hospital settings but less so in general Ayurvedic practice. Patients with secondary hypertension are also comparatively fewer in our practice.

## Strategies

a) Acute end-organ involvement, such as conditions like CVA, coronary ischaemia- are the limitations for stand-alone Ayurvedic treatment
b) Patients on antihypertensive drugs with stabilized status – preferably no modification.
c) On antihypertensives but not stabilized, or with complications like CVA -maintain the existing regime and plan the management.

Patients presenting with acute end organ failure, such as cerebrovascular accidents (CVA), have limited scope for recovery with standalone Ayurvedic treatment. In such cases, I do not rely solely on Ayurvedic management. Regardless of the patient's preference, immediate emergency management with conventional medicine is necessary.

Later, once the patient's condition is stabilized, we may implement our Ayurvedic management. The strategy for such patients is to ensure that their life is saved and organ damage is minimized. We have standard protocols for managing these conditions and should utilize them to save the patient's life. I don't believe there is much to be done with Ayurvedic treatment alone in these

cases. While I do provide Ayurvedic medicines, the core part of the treatment would primarily involve conventional medical approaches.

The second category of patients includes those on antihypertensive drugs with a stabilized status. They do not have any pathology as such, but sometimes they strongly wish to shift to Ayurvedic treatment. I always suggest such patients avoid shifting and continue with their current treatment. The reasons are simple: most of the time, they may not have the same patience for a longer duration, and they may not be as regular with our medicines. Conventional medications are easily available and more straightforward to sustain. However, if the patients insist on switching, we can provide a treatment plan tailored to their needs.

The next category includes patients who are on antihypertensive medication but have not yet stabilized and may have complications. My approach is to maintain their current regimen; I do not discontinue their antihypertensive drugs. Alongside these medications, we can incorporate our management plan and co-prescribe our Ayurvedic medications. I have prescribed our drugs alongside conventional antihypertensive drugs to a significant number of patients without encountering any complications. Therefore, we can confidently combine our medications with others in these cases.

## Other conditions:

I have observed that patients exhibiting symptoms related to hypertension are relatively easier to manage compared to asymptomatic patients. The response to our Ayurvedic drugs is notably lower in asymptomatic individuals with high blood pressure. These patients pose a real challenge. I categorize them as Udanavruta Prana, where hypertension is considered an example of Anyonya Avarana of all Vata.

## Udana Avruta Prana:

निःश्वासोच्छ्वाससंरोधः प्रतिश्यायः शिरोग्रहः ।
हृद्रोगो मुखशोषश्च प्राणेनोदान आवृते ।।
उदानेनावृते प्राणे वर्णौजोबलसङ्क्षयः । (A.H.Ni.16/236, 237)

**Dyspnoea on exertion and cardiac enlargement as a presentation of Hypertension**

Many patients with hypertension also present with symptoms like dyspnoea on exertion or cardiac enlargement. According to the 2014 guidelines on hypertension, one criterion for confirming the need for treatment was the

thickness of the ventricular wall. If echocardiography indicated a ventricular wall thickness greater than 10mm, treatment was considered necessary due to the increased load on the heart, regardless of whether the patient's blood pressure was elevated. However, this criterion was removed in the 2017 guidelines. I consider these conditions to fall under Udanavruta Prana in Ayurveda.

**Prescription:**

- Chandraprabha Vati
- Punarnava Mandoora
- Avipattikara Choorna

The responses to treatment for hypertension vary among patients, often showing good but inconsistent results. Some patients respond very well, while others do not find the outcomes satisfactory, especially those with significant cardiomegaly. Lifestyle and diet play crucial roles, and I frequently recommend Yoga where feasible.

In my prescriptions for Udanavrita Prana, I include Avipattikara Choorna as an Anulomana, Chandraprabha Vati as a Rasayana, and Punarnava Mandoora as a Mootrala Aushadhi. Generally, I classify all hypertension conditions as Jara vyadhi because they are signs of aging exacerbated by stress and oxidative damage. Therefore, I find it preferable to include a Rasayana like Chandraprabha Vati in the treatment of hypertension.

Another category of patients presenting with hypertension is Pittavrutta Prana or Pittavruta Udana. In both of these conditions, a common symptom is giddiness, which is frequently observed among hypertensive patients. It is suggestive of involvement of the pitta. The features are described in the following shloka:

> भ्रमो मूर्च्छा रुजा दाहः पित्तेन प्राण आवृते।।
> विदग्धेऽन्ने च वमनम्---------- । (A. H. Ni 16/42)

In such conditions, my treatment approach typically includes Chandraprabha Vati as Rasayana along with Kamdugha and Bhoonimadi Kwatha to address Pitta involvement. This category of patients often responds well to Virechana therapy. In contrast, patients in the first category (Udana Avruta Prana) may not consistently respond to Virechana. For those experiencing giddiness and falling within the range of up to the second degree of hypertension, this treatment regimen tends to yield positive outcomes. The duration of treatment varies

based on the patient's response. For some, frequent Virechana sessions can lead to complete resolution of symptoms, enabling them to live without any medications. Following Virechana, Samsarjana Karma becomes crucial to maintain the benefits achieved.

.....उदाने विभ्रमादयः।

दाहोऽन्तर्रुजाभ्रंशश्च..... (A.S. Ni 16/38)

The next category of patients includes those with Pittavrita Vyana condition, characterized by generalized symptoms such as temporary body weakness resembling transient ischemic attacks (TIAs). This symptom is quite common among hypertensive patients, and we often encounter cases where patients report only this kind of symptom.

A transient ischemic attack differs from a full cerebrovascular accident (stroke) in that the symptoms, like numbness and temporary loss of movement, typically resolve within 15 minutes. If symptoms persist beyond this timeframe, we then consider it as a cerebrovascular pathology. Patients experiencing attacks lasting less than 15 minutes often do not spontaneously report them unless specifically asked.

**Prescription:**

- Chandraprabha Vati
- Ekangaveera Rasa
- Manjishtadi Kwatha or Ashwagandharishta

If the patient is physically weak, I would prescribe Ashwagandharishta; otherwise, the general prescription would be Manjisthadi kwatha, considering Pitta involvement.

Another treatment option I frequently recommend is Matra Basti or Rajayapana Basti, depending on the patient's specific condition. For patients who are physically weak and experiencing persistent neurological deficits, I prefer Rajayapana Basti. On the other hand, if the situation warrants a different approach, Matra Basti is prescribed, often resulting in significant and satisfactory outcomes.

It is important to note that I don't claim our medicines alone can cure every patient in this category. There are certain limitations, and these can only be identified through careful and thorough follow-up.

**Key points**

Transient ischemic attacks and Neuritis – Pittavruta Vyana

- Chandraprabha Vati
- Ekangaveera Rasa
- Manjishtadi Kwatha /Ashwagandharishta
- Matra basti /Rajayapana Basti

The other variety of hypertension that we come across is in obese patients. Obese patients exhibit Kaphavrita Udana Lakshana.

उदाने गुरुगात्रत्वमरुचिर्वाक्स्वरग्रहः ।
बलवर्णप्रणाशश्च---------- । (A.H. Ni.16/47)

The symptoms seen in patients with both hypertension and obesity are noted in the writings of Acharya Vagbhata. However, while modern medicine often views obesity as a cause of hypertension, Acharya Vagbhata's perspective suggests that obesity may also arise as a consequence of the underlying pathology. This condition can be related to Vyanavruta Prana, where the clinical symptoms include difficulties in walking freely and an impaired gait due to heaviness of the body, known as Guru gatrata. In these conditions, considering Agnimandya and Anulomana as the major targets of treatment, my prescription would typically include:

- Chandraprabha Vati
- Arogyavardhini Rasa
- Avipattikara Choorna

I typically recommend Agni Chikitsa and Kshara Basti treatments in our hospital, especially after admitting the patient. Kshara Basti is preferred for patients who are significantly obese, while Matra Basti is suitable for those with moderate obesity. Additionally, for patients exhibiting more Kapha-related symptoms, I use Tikshna Pachana Aushadhis, which have shown consistently satisfactory results. However, I must emphasize that not every patient responds equally well to these treatments. Each case requires a specific approach, and despite our best efforts, there are still patients who may not experience the desired outcomes.

**Key Point:**

**Obesity and Hypertension [Dyslipidaemia] – Kaphavrita Udana /Vyana /Prana**

- Chandraprabha Vati
- Arogyavardhini Rasa
- Avipattikara Choorna
- Agnichikitsa with Ksharabasti /Matrabasti

Anyhow, I would like to be very clear that there are limitations to all the above approaches, and those limitations always have to be carefully watched out.

## Hypertensive encephalopathy –Mada

यदा तु रक्तवाहीनि रससञ्ज्ञावहानि च।
पृथक् पृथक् समस्ता वा स्रोतांसि कुपिता मलाः।।
मलिनाहारशीलस्य रजोमोहावृतात्मनः।
प्रतिहत्यावतिष्ठन्ते जायन्ते व्याधयस्तदा।।
मदमूर्च्छायसन्न्यासास्तेषां विद्याद्विचक्षणः।
यथोत्तरं बलाधिक्यं हेतुलिङ्गोपशान्तिषु।।
दुर्बलं चेतसः स्थानं यदा वायुः प्रपद्यते।
मनो विक्षोभयञ्जन्तोः सञ्ज्ञां सम्मोहयेत्तदा।।
पित्तमेवं कफश्चैवं मनो विक्षोभयन्नृणाम्।
सञ्ज्ञां नयत्याकुलतां विशेषश्चात्र वक्ष्यते।। (Ch.Su.24-29)

The conditions observed align closely with descriptions found in Ayurvedic texts, particularly within the context of Mada Vyadhi. Ayurvedic texts have detailed these complications, including impaired consciousness and behavioural abnormalities akin to hypertensive encephalopathy, which Acharya Sushruta identifies as Asadhya (difficult to treat). In managing such conditions, my approach is highly specific to each case, considering the severity and unique manifestations of the patient's symptoms.

Many a times, I prioritize stabilizing blood pressure as part of my treatment strategy. I aim to achieve this by integrating established medical regimens alongside Ayurvedic principles. While I don't delve into specific drug prescriptions, I carefully consider these options. In critical situations like these, my approach is not strictly confined to Ayurveda alone because the primary goal is to swiftly save the patient's life. Depending on the severity, life-saving measures such as oxygen therapy and other interventions may be essential to manage the patient's condition effectively.

The other common prescriptions that I usually give are mentioned below.

- Chandraprabha Vati
- Ekangaveera Rasa
- Abhraka Bhasma
- Tapyadi Loha
- Godanti Bhasma
- Avipattikara Choorna
- Agnichiktsa / Matra basti

Abhraka Bhasma and Tapyadi Loha are part of the regimen used for treating conditions arising from Dhatukshaya and Margavarna janya vyadhi (disorders affecting the pathways). Treating both these aspects is crucial for patients to achieve better recovery. In cases of hypertensive encephalopathy, patients often show improved recovery when these Ayurvedic medications are prescribed alongside standard antihypertensive treatments. Therefore, I emphasize that managing hypertension involves a comprehensive approach where Ayurvedic medications complement conventional therapies, contributing to faster recovery and overall better outcomes for the patients.

Agni Chikitsa and Matra Basti are standard protocols in our hospital for the majority of the patients. A good number of patients have recognized this, and the number of patients who come with acute presentations to our hospital is gradually increasing. Earlier, it was like patients with stroke, after having treatment in other hospitals, would come to the Ayurveda hospital only at the end for massage, and so on. But the trend is gradually changing, and this change is because of this kind of approach.

## Management of hypertension complications:

Another area where we encounter patients with a significant number of complications of hypertension is when individuals are on antihypertensive drugs and develop complications.[1] Patients come to us for management where these complications are either not recognized or not properly managed. There are some areas where we can make a difference without modifying the antihypertensive drug.

**Beta-blockers:**

Beta-blockers are known to sometimes cause breathlessness as a side effect. One significant concern is their potential to exacerbate bronchoconstriction,

[1] *https://www.ncbi.nlm.nih.gov/books/NBK554579/ (last accessed on 10/04/2024)*

particularly in patients already prone to this condition. In such cases, my treatment approach typically involves prescribing Chandraprabha Vati and Shwas Kuthar Rasa to alleviate symptoms.

Another critical issue with beta-blockers is their impact on cardiovascular function. They can reduce the heart's ability to respond adequately to increased demands during physical exertion. Therefore, it is essential to counsel patients on exercising within safe limits. Exceeding these limits under beta-blocker therapy could lead to complications or even collapse due to inadequate blood supply to the heart. Educating patients about exercise restrictions and closely monitoring their physical activity is crucial to prevent such outcomes and ensure optimal management of hypertension alongside beta-blocker therapy.

**Calcium Channel Blockers:**
These drugs are widely prescribed, with calcium channel blockers being a common choice among cardiologists. One of the primary complications associated with calcium channel blockers is bradycardia or significant hypotension. In situations where discontinuing the drug is not feasible, especially in patients already dealing with complications like cerebrovascular accidents or coronary artery disease, administering Prabhakara Vati can be beneficial. Prabhakar Vati has shown effectiveness in improving the condition of patients experiencing such complications, providing a supportive therapeutic approach alongside the prescribed medication regimen.

**ACE (Angiotensin-Converting Enzyme) inhibitors:**
ACE inhibitors are other drugs that have side effects such as angioedema, allergic reactions, and hepatic pathologies. I consider this as Sheeta Pitta. In this condition, my prescription would be Arogya Vardhini and Manjishthadi Kashaya. This standard prescription aims to reduce these complications.

**ARBs (Angiotensin Receptor Blockers):**
Angiotensin receptor blockers can often produce postural hypotension conditions. Symptoms like anxiety, neurosis, and giddiness tend to occur. In such cases, the usual prescription would be Chandraprabha Vati and Saraswatarishta.

# Controversies and contradictions

- Sarpagandha in hypertension
- Ideal target pressure
- Essential hypertension/Primary Hypertension?
- Dyslipidaemia and Hypertension
- Hypertension and short-tempered behaviour
- Herbal drugs as antioxidants

These are certain issues. I try to sensitize about these issues from a general clinical practice point of view.

## Sarpagandha and Hypertension:

I don't prescribe Sarpagandha for hypertension due to several reservations. In 1951, Reserpine was identified as an alkaloid for hypertension. Sarpagandha contains not only Reserpine but also other alkaloids, some of which can increase blood pressure. When administering Sarpagandha, you are prescribing both Reserpine and its antagonist, which can be both advantageous and disadvantageous. Sarpagandha in our texts is traditionally described in the treatment of Visha Chikitsa and Bhoota Abhishyanga. Its use for hypertension began only after reserpine was discovered. Before the discovery of reserpine, Ayurvedic doctors were not aware of its antihypertensive properties. When prescribing Sarpagandha for hypertension, reserpine itself is preferred because exact dosing standards are available, specifying the appropriate amount to administer. In crude Sarpagandha preparations, the exact quantity of reserpine present is not known, which raises concerns about consistency and efficacy. These are the considerations I take into account; I am not criticizing those who prescribe Sarpagandha for hypertension.

The other important issue to consider is the adverse effects of Sarpagandha. In my earlier practice, I prescribed Sarpagandha to a few patients and observed several common adverse effects. These included abnormalities in the gastrointestinal tract, decreased appetite, and typical symptoms of Agnimandya. After noticing these side effects in a significant number of patients, I discontinued prescribing Sarpagandha for hypertension. Therefore, from my perspective, I do not consider Sarpagandha as a suitable treatment for hypertension.

## Target pressure

The issue of determining the target blood pressure in hypertension treatment is indeed controversial. Recent data from 2017 has highlighted a new phenomenon known as the J-curve. This phenomenon suggests that lowering diastolic pressure below 60 mmHg or systolic pressure below 130 mmHg in hypertensive patients, especially after management, can potentially lead to complications that are nearly as serious as those caused by high blood pressure itself.

In essence, overtreatment of hypertension that results in excessively low blood pressure may pose risks. The primary goal of hypertension treatment is to prevent complications, and this objective is compromised when blood pressure is lowered too much. This consideration is particularly relevant for patients with primary hypertension who do not have organic damage. In contrast, for patients who already have organic damage, applying a rigid treatment approach may not be advisable.[1]

## Lower BP may raise the death risk:

Lower blood pressure (BP) targets in hypertensive patients with chronic kidney disease may increase their risk of death, as indicated by a study. Statistics provided in the study suggest that when blood pressure falls below 120/80 mm Hg, the death risk percentage increases. The death rate per 1000 patients per year statistically rises. This is based on global statistics, not just my view, and highlights the importance of being cautious when treating hypertension to avoid overtreatment.[2]

In my practice, I always aim for a target blood pressure of 90 mmHg for diastolic pressure and 150 mmHg for systolic pressure in patients with hypertension who are undergoing medical treatment. I consider these values to be safe thresholds

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*[1] Sim, J. J., Shi, J., Kovesdy, C. P., Kalantar-Zadeh, K., & Jacobsen, S. J. (2014). Impact of achieved blood pressures on mortality risk and end-stage renal disease among a large, diverse hypertension population. Journal of the American College of Cardiology, 64(6), 588–597. https://doi.org/10.1016/j.jacc.2014.04.065*

*[2] Kovesdy CP et al. Observational modeling of strict vs conventional blood pressure control in patients with chronic kidney disease. JAMA Intern Med (published online ahead of print).*

and strive to maintain blood pressure within these limits based on clinical conditions.

I recognize that white coat hypertension, where blood pressure readings are elevated in a clinical setting due to anxiety or stress, may sometimes affect measurements. While following the standard protocol of recording blood pressure three times to mitigate this effect would be ideal, it is often impractical in our clinical settings. Therefore, I adhere to a target value of 150/90 mmHg when assessing blood pressure in my clinic. I do not have an objective statistical incidence of complications in my patients, but I feel it is not substantial.

**Recommendations for hypertension treatment in the 2014 guidelines for adults, according to major treatment group:**

According to the 2014 guidelines, the target blood pressure varies based on age and comorbidities. For patients under sixty years without diabetes or renal disorders, the target diastolic pressure is less than 90 mmHg. For those over sixty years without these conditions, the target systolic pressure is 150 mmHg and diastolic pressure is 90 mmHg. Therefore, I aim for a target of 150/90 mmHg universally in my practice.

In cases where patients have diabetes or renal disorders, the target blood pressure should be 140/90 mmHg. It is important to note that this target differs from the general norm of 120/80 mmHg, which is considered normal blood pressure in the absence of hypertension.[1]

## Overtreatment –Survey by Association of Physicians in India [API]

It is important to highlight findings from the Association of Physicians of India (API) survey conducted in 2015, which shed light on significant issues in hypertension management. One noteworthy result was that a substantial 70% of practitioners, including cardiologists, indicated they would initiate pharmacological treatment for hypertension at a blood pressure reading of

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*[1] Olowofela, A. O., & Isah, A. O. (2017). A profile of adverse effects of antihypertensive medicines in a tertiary care clinic in Nigeria. Annals of African medicine, 16(3), 114–119. https://doi.org/10.4103/aam.aam_6_17*

140/90 mmHg. This contrasts with established guidelines recommending non-pharmacological interventions initially and reserving drug therapy for higher readings or persistent hypertension.

This discrepancy suggests a potential issue of overtreatment, where many patients may receive unnecessary antihypertensive medications. It underscores the importance of adhering to evidence-based guidelines that emphasize lifestyle modifications as the first line of treatment in managing hypertension, reserving medication for cases where lifestyle changes alone are insufficient or where blood pressure remains consistently elevated.

The API survey also queried whether patients should continue antihypertensive drugs for life once initiated. Interestingly, responses varied among family physicians, cardiologists, and other practitioners, with a notable number advocating for lifelong medication. However, it is crucial to note that while this practice may be common, it is not necessarily mandatory.

In hypertension management, especially when integrating Ayurvedic approaches, the potential for discontinuing medications exists with careful monitoring and appropriate supportive therapies. This approach aligns with individualized patient care and the goal of optimizing health outcomes while minimizing unnecessary long-term medication use. Thus, when managing hypertension in clinical practice, it is essential to consider these aspects and tailor treatment plans accordingly.

In cases where patients have existing organic damage such as cerebrovascular accidents or coronary pathology, discontinuing antihypertensive drugs may not be advisable due to the potential risks associated with even minor blood pressure fluctuations. However, for many patients who do not have such complications, I do consider the possibility of discontinuing antihypertensive medications under certain conditions.

This approach is contingent upon patients being willing to commit to regular follow-up and observation. If patients are not willing or able to adhere to follow-up requirements, I do not take the risk of discontinuing medications. Nonetheless, there is a significant number of patients who can potentially benefit from this approach.

It is important to emphasize that this perspective is not intended as criticism of current practices but rather as a reflection of the evolving understanding and individualized management strategies in clinical practice. By carefully considering these factors, we aim to optimize patient care and potentially reshape the approach to hypertension management.[1]

**Echocardiography and ventricular thickness as a guide for treatment: 2013 European Society of Hypertension (ESH) and of the European Society of Cardiology (ESC) Guidelines and Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure (JNC-7) guidelines**

Evidence of left ventricular hypertrophy (LVH) and atrial dilatation indeed serves as secondary evidence indicating the need for hypertension treatment. These cardiac changes reflect the heart's adaptation to chronic high blood pressure and signal potential cardiovascular risks if left untreated.

The JNC 8 guidelines effective from 2017 do not specifically address LVH and atrial dilatation, which were previously considered criteria under the 2014 guidelines. The term "essential hypertension," once commonly used, was also removed in 2014, reflecting a shift in how hypertension is conceptualized and managed. In clinical practice, there are patients with higher blood pressure levels, such as those in category two (150/90 mm Hg or occasionally even 150/100 mm Hg). Even a slight reduction in blood pressure, by as little as 10 mm Hg, can lead to significant symptoms like giddiness or discomfort in these individuals. While these cases may be less frequent, they often seek advice from Ayurvedic doctors regarding the necessity of treatment.

When faced with uncertainty about the necessity of treatment, I adhere to guidelines and recommend echocardiography for further evaluation. If echocardiography reveals significant LVH or other cardiac abnormalities, I advise continuing treatment, whether Ayurvedic or modern medical. However, in cases where there is no significant LVH or atrial dilatation, I prefer a conservative approach and recommend against initiating medical treatment.

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[1] *Mangrulkar, S., Khair, P., Hingne, V., & Hanchnale, P. (2015). Hypertension Management and Antihypertensive Withdrawal--A Perspective. The Journal of the Association of Physicians of India, 63(5), 19–26.*

Instead, emphasis is placed on lifestyle modifications, dietary adjustments, and regular monitoring.

Many patients can maintain a normal life without daily medication when supported by these measures. I acknowledge that daily medication adherence can impact a patient's overall well-being and quality of life, I underscore the importance of personalized management approaches tailored to each patient's specific needs and clinical findings.

## Familial hypercholesterolemia -2011

Another controversial, highly debated, and popular issue is cholesterol. Familial hypercholesterolemia is a frequently identified condition, with a higher incidence in certain populations. Many individuals maintain a normal diet with low fat content yet still exhibit high cholesterol levels, a situation attributed to familial hypercholesterolemia, a term that emerged in 2011. Patients with this condition are often prescribed numerous medications. While this is not a criticism, it highlights an opportunity for us in the management of such cases. The incidence of familial hypercholesterolemia is particularly high in Eastern countries, with India having a notably higher rate compared to other regions.[1]

The complications associated with cholesterol, such as coronary pathology, show varying mortality rates based on age. For individuals under 60 years old, the death rate per 1000 person-years is less than 50, indicating that elevated cholesterol levels are not significantly associated with increased mortality in this age group. However, for individuals over 60 years old, the death rate increases rapidly with high cholesterol levels, highlighting the need for more aggressive management in older patients. Additionally, a notable number of young patients, aged 15 or 16, with elevated cholesterol levels are being prescribed medication.[2]

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[1] *Chen, P., Chen, X., & Zhang, S. (2019). Current status of familial hypercholesterolemia in China: A need for patient FH Registry Systems. Frontiers in Physiology, 10. https://doi.org/10.3389/fphys.2019.00280*

[2] *Gupta, R., Rao, R. S., Misra, A., & Sharma, S. K. (2017). Recent trends in epidemiology of dyslipidemias in India. Indian heart journal, 69(3), 382–392. https://doi.org/10.1016/j.ihj.2017.02.020)*

## Hypercholesterolemia awareness, treatment and control among urban adults in India

I am not going to criticize it, but there are certain facts we need to consider. Awareness about cholesterol is increasing very rapidly; more than 17% of the population is aware of their cholesterol levels and concerned about them. Many a times, they are more sensitive about their cholesterol levels than the doctors. The issue is about the prescription. [1]

**Statin Prescriptions per 1,000 Population And 1,000 Patients with Coronary Heart Disease (CHD), February 2006–January 2010:**

I'm not going to delve into all the controversies, but sometimes it is unavoidable. The earlier prescription for hypercholesterolemia was 'Clofibrate.' Statins were invented in 2008 and 2009, and after FDA approval, they became the go-to prescription for cholesterol management. These days, almost every patient who has visited a cardiologist is prescribed statins. They are considered to be universal health improvers and are widely promoted.[2]

Statins have a very common adverse effect, and that effect is damage to the skeletal muscles. Patients commonly experience pain in the muscles; it is not arthritis pain, but the patient continues to have pain in the bones, muscles, and so on, with vague symptoms. Most of the time, patients are sent for vitamin D3 investigations, which has become a trend. There is a linkage between cholesterol, statins, and vitamin D3. Statins are commonly prescribed, and vitamin D3 is frequently tested, incurring considerable costs and sometimes resulting in kickbacks. This creates a vicious cycle, leading many patients to Ayurvedic hospitals. The general belief among patients is that Ayurvedic treatment is better for pain and neurological conditions, making statin-induced complications a fertile area for practitioners.

A simple clue to identifying statin levels is assessing creatine phosphokinase (CPK) levels, which are typically in the range of 100-200 U/L not very high and not

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[1] *Recent trends in epidemiology of dyslipidemias in Indiia. RajeevGuptaa Ravinder S.Raoa Anoop Misrab SaminK.Sharmac Indian Heart Journal Volume 69, Issue 3, May–June 2017, Pages 382-392*

[2] *Choudhry, N. K., Dugani, S., Shrank, W. H., Polinski, J. M., Stark, C. E., Gupta, R., Prabhakaran, D., Brill, G., & Jha, P. (2014). Despite increased use and sales of statins in India, per capita prescription rates remain far below high-income countries. Health affairs (Project Hope), 33(2), 273–282. https://doi.org/10.1377/hlthaff.2013.0388)*

considered a sign of myopathy, but just above normal. With this kind of result, there's no need to ask whether the patient is taking statins; it is almost certain they are. Patients experiencing statin-induced complications often respond well to our prescriptions. This treatment can significantly change the lipid profile, allowing for the withdrawal of statins and replacement with Ayurvedic treatment.

**My prescription for hypercholesterolemia**

- Chandraprabaha vati
- Arogyavardhini Rasa
- Kumaryasava - Significant change in the lipid profile
- Virechana – Decisive and remarkable change in the lipid profile
- Diet and exercise are supreme. Diet and exercise have a positive role.

**The adverse effects of Statins**:
The most important adverse effects include muscle aches and rhabdomyolysis.
**Statin induced myopathy:**
I consider statin induced myopathy as Amavata. My treatment for statin induced myopathy or for rheumatoid pathology would be:

- Kaishora Guggulu
- Mrityunjaya Rasa
- Amritarishta

As far as I remember, I have not failed with the above prescription in cases of statin induced myopathies.

## Hypertension and personality traits

Elaborate studies have confirmed that hypertension is not primarily caused by an aggressive personality; rather, it is more commonly associated with introverted personalities. Individuals who tend to internalize their emotions and refrain from expressing them are more prone to hypertension than those who openly express their feelings. This finding contradicts the common misconception that hypertension is more prevalent among aggressive individuals who outwardly express their emotions.[1]

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[1] *Yan, L. L., Liu, K., Matthews, K. A., Daviglus, M. L., Ferguson, T. F., & Kiefe, C. I. (2003). Psychosocial factors and risk of hypertension. JAMA, 290(16), 2138. https://doi.org/10.1001/jama.290.16.2138*

Certainly, individuals who are short-tempered may experience a temporary increase in blood pressure during bouts of anger. However, it is important to note that this increase is transient and does not necessarily lead to long-term changes in blood pressure.

In clinical practice, it is observed that many patients with psychiatric disturbances, especially those with depressive symptoms, attribute their condition to antihypertensive medications. Among these medications, calcium channel blockers have been identified as having the highest incidence of mood disorders. This observation is based on available data indicating that a significant number of patients prescribed calcium channel blockers experience complications related to mood disorders.[1]

Often, patients present with both antihypertensive medications and mood disorders, and while the correlation may not always be straightforward, it is a condition frequently encountered. When it is deemed necessary to continue antihypertensive treatment despite the presence of mood disorders, I typically maintain the existing regimen. Additionally, I prescribe Medhya Aushadhi such as Saraswatarishta or Smritisagar Rasa to help support cognitive function and manage any associated mental health concerns.

## Currently used anti-oxidants in Hypertension:

The fascination with antioxidants has grown significantly, with many drugs being touted for their antioxidant properties. While ongoing research is essential and valuable, the subjective nature of these claims should be acknowledged. In my view, the most effective antioxidant is a peaceful mind—one that avoids harm, maintains a pleasant disposition, and doesn't dwell on unnecessary concerns.

Regarding dietary considerations, there is extensive literature on antioxidants. A notable reference I often rely on is "Antioxidant Properties of Spices, Herbs, and Other Sources" by Denys J. Charles. This book serves as a comprehensive guide, detailing the antioxidant properties of various dietary substances commonly

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*[1] Boal, A. H., Smith, D. J., McCallum, L., Muir, S., Touyz, R. M., Dominiczak, A. F., & Padmanabhan, S. (2016). Monotherapy With Major Antihypertensive Drug Classes and Risk of Hospital Admissions for Mood Disorders. Hypertension (Dallas, Tex. : 1979), 68(5), 1132–1138. https://doi.org/10.1161/HYPERTENSIONAHA.116.08188*

used in our daily practice. It provides valuable insights into how these substances can contribute to antioxidant activity and overall health.

# Hridroga

The domain of Hridroga, or heart disease, encompasses a broad spectrum of conditions, making comprehensive coverage challenging within Ayurvedic practice's scope. Based on my clinical experience, I have found that our limitations often lie more in accurately identifying the disease rather than in managing it. Therefore, timely and precise diagnosis becomes crucial, as it opens the door to appropriate management strategies. These are critical points that warrant discussion in our approach to treating heart-related disorders.

## Congenital heart diseases:

The causes of congenital heart disease are multifactorial, primarily involving genetic and environmental factors, both of which are potentially preventable. Prevention of congenital abnormalities through measures such as premarital genetic assessment is crucial in mitigating risks. In cases where consanguinity is a known risk factor, avoiding such marriages is advised within the limitations of our practice. Environmental factors like rubella pathology highlight the need for appropriate medical interventions, such as immunosuppressants or antiviral drugs, despite their potential risks. From an Ayurvedic perspective, while our focus may differ, it is important not to neglect the preventive measures available to minimize these complications.[1]

**The incidence and prevalence of congenital heart diseases:**

It is quite common for paediatric cases to present with congenital heart diseases, especially prevalent in Asia. A simple auscultation can often aid in identifying many of these conditions. While I take responsibility for detecting these heart issues, I must clarify that effective management for all congenital heart diseases is not always possible through Ayurvedic methods. However, I do take pride in identifying undiagnosed congenital heart diseases when patients visit me for other conditions, subsequently recommending them for further evaluation. For most congenital heart diseases, medical treatment options are

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*[1] Jinga, M., Dumitrescu, S., Stan, L., Bontaş, E., Păduraru, T., Ţintoiu, I. C., Murgu, V., & El Zoabi, R. D. (2018). Essential in genetic etiology of congenital heart diseases. Right Heart Pathology, 257–271.https://doi.org/10.1007/978-3-319-73764-5_13*

limited, and surgical intervention is often necessary, particularly in South India where it is frequently indicated.

## Congenital heart disease in adulthood:

If a patient has lived with congenital heart disease for 50 years, I often reassure them that surgery may not be necessary. This advice may differ from that of other cardiologists, but my reasoning is straightforward: if someone has managed with the condition for five decades, they can likely continue to do so for another 25 years or more without urgent surgical intervention. This approach is based on my clinical experience, where I have seen patients diagnosed with congenital heart disease later in life opting for surgery and facing more severe or fatal complications as a consequence. Major sources like the World Health Organization (WHO) consistently report poor outcomes for adults undergoing surgery for congenital heart disease.

Critical congenital heart disease conditions typically do not allow a person to live into adulthood. However, if a person has reached adulthood with a congenital heart disease, there is some scope for management. The management in such cases is primarily aimed at preventing the possibility of a stroke. In congenital heart disease, one potential complication is the development of a stroke due to embolism or cardiac myopathy resulting from the heart's pumping failure. Both of these can be managed, as we will discuss in the other category of diseases, including other coronary cardiovascular disorders beyond congenital conditions.[1]

## Percentage of heart diseases

The primary categories of cardiac pathologies include ischemic heart disease, which is the predominant group. Hypertensive heart disease forms another significant category, while rheumatic heart disease represents a smaller group comparatively. Inflammatory diseases affecting the heart are less common. Another group involves cardiac pathologies leading to cerebrovascular complications, where conditions such as stroke can occur due to cardiac issues, potentially resulting in the formation of emboli.[2]

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[1] *https://www.ahajournals.org/doi/full/10.1161/CIRCULATIONAHA.111.027763*

[2] *https://www.world-heart-federation.org/resources/different-heart-diseases/*

In this scenario, patients typically receive anticoagulants and platelet aggregation inhibitors like Aspirin or Clopidogrel. Most patients are already prescribed these medications, and I do not recommend discontinuing them. If a patient already has a predisposition to cardiac pathologies and is undergoing such treatment, I advocate for its continuation. Alongside, I integrate my prescribed treatments based on the patient's specific condition. Diet and exercise are universally advised practices to prevent cardiovascular pathologies. For patients at risk of cardiac issues and associated cerebrovascular complications, prevention primarily involves platelet aggregation inhibitors or occasionally anticoagulants.

Now, the question arises regarding Hridroga as described from an Ayurvedic point of view.

वातेन शूल्यतेऽत्यर्थं युद्यते स्फुटतीव च।।
भिद्यते शुष्यति स्तब्धं हृदयं शून्यता द्रवः।
अकस्माद्दीनता शोको भयं शब्दासहिष्णुता।।
वेपथुर्वेष्टनं मोहः श्वासरोधोऽल्पनिद्रता।। (A. H. Ni 5/39,40,41)

The term "Vataja Hridroga" clearly correlates with ischemic disorders characterized by acute substernal pain. This symptom aligns precisely with the description of Vataja Hridroga in Ayurveda. Moreover, this condition can progress to complications such as confusion (moha) and respiratory obstruction (shwasarodha), sometimes leading to respiratory failure. Therefore, Vataja Hridroga encompasses the entire spectrum of potential complications associated with ischemic disorders.

When a patient presents with ischemic disorders, particularly myocardial infarction in the contemporary context, it is essential to keep in mind the evolving nature of this issue. The diagnosis and understanding of myocardial infarction have undergone significant changes over time. Before 1950, myocardial infarction was primarily diagnosed postmortem, after the patient had already passed away. It was during autopsies that evidence of ischemic heart disease was first identified. Clinical diagnosis of myocardial infarction was exceedingly rare during that era.

The initial definition of Myocardial Infarction (MI) set by the WHO in 1959, characterized it as substernal pain accompanied by changes in the electrocardiogram (ECG). Over time, this definition has undergone several revisions. The latest iteration, as of January 2019, is the 4th guideline for the

diagnosis of myocardial infarction, which introduces five specific categorizations for its diagnosis.

Type 1 myocardial infarction represents an acute condition triggered by the abrupt rupture of blood vessels or plaque, resulting in sudden obstruction. It typically manifests without significant preceding symptoms and often leads to critical outcomes. Managing this type of myocardial infarction remains challenging due to its unpredictable and severe nature. Clinically, identifying Type 1 myocardial infarction hinges on recognizing symptoms like intense chest pain accompanied by sweating. Prompt and targeted investigations are crucial upon presentation of these symptoms to confirm the diagnosis and initiate appropriate treatment.

Type 2 myocardial infarction occurs when patients exhibit symptoms of cardiac ischemia and have elevated troponin levels or other indicators. Unlike Type 1 myocardial infarction, Type 2 myocardial infarction is typically associated with chronic conditions such as hypertension or other chronic ischemic conditions that are manageable. Therefore, addressing underlying chronic conditions presents an opportunity to potentially prevent or mitigate the risk of Type 2 myocardial infarction.

Type 3 myocardial infarction is characterized by the sudden development of pathology without clear reasons, often due to embolism or thrombosis. These events are challenging to identify and manage. For both Type 1 and Type 3 myocardial infarctions, it is advisable to refer the patient to a cardiologist or a facility equipped with continuous monitoring capabilities. These conditions necessitate ongoing observation and specialized care to manage their acute and critical nature effectively.

Types 4 and 5 conditions are limited to operative situations. Type 4 pertains to patients with stents or catheters who develop ischemia. Type 5 involves the development of ischemia during surgery, which falls outside the scope of our practice and is a cardiologist's concern. Therefore, types four and five are specific to issues within the cardiac surgery and cardiology domains.

**Non-ischemic myocardial injury:**
Another aspect to consider is the definition of myocardial infarction, which has been expanded to include non-ischemic injuries. This is a new addition to the definition, and it is something we encounter in our routine clinical practice.

Non-ischemic myocardial injury conditions present a variety of causes that we frequently encounter and manage. These include patients with chronic conditions such as hypertension, renal disorders, and hyperthyroidism. Features resembling ischemic pathologies are often observed in cardiac conditions, leading to clinical symptoms that may mimic ischemia. In such cases, there is no need to panic. Instead, we should focus on addressing the primary conditions. For instance, efficiently managing severe anemia can mitigate cardiac complications, even regulating troponin levels. Thus, cardiac injuries resulting in secondary complications are distinct from true cardiological conditions.[1] The key challenge lies in clinically identifying these conditions.

In situations where feasible, we can effectively manage primary conditions such as hypertension, hyperthyroidism, and other chronic illnesses. However, managing patients with severe renal failure, indicated by creatinine levels of 9 or 10 mg/dL, presents complex challenges that may exceed our capabilities in Ayurvedic practice. Therefore, it is essential to acknowledge and respect our limitations.

Despite these limitations, there are still opportunities within our scope for managing related symptoms and providing supportive care.

## ECG identification:

Understanding ECG findings in ischemic pathology can be complex, especially when interpreting ST segment variations. Clinics often rely on expert opinions for ECG readings. If you encounter an ECG showing ST segment changes and feel unsure about your interpretation, I suggest seeking a second opinion. While some ST segment changes may not significantly alter our treatment approach, others can be pivotal in clinical decision-making. When in doubt, obtaining a second opinion can help identify and address critical conditions accurately. It is crucial to acknowledge that ECG interpretations have inherent limitations, with an accuracy range typically between 70% to 80%. This means there's a

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[1] *Thygesen, K., Alpert, J. S., Jaffe, A. S., Chaitman, B. R., Bax, J. J., Morrow, D. A., White, H. D., & Executive Group on behalf of the Joint European Society of Cardiology (ESC)/American College of Cardiology (ACC)/American Heart Association (AHA)/World Heart Federation (WHF) Task Force for the Universal Definition of Myocardial Infarction (2018). Fourth Universal Definition of Myocardial Infarction (2018). Journal of the American College of Cardiology, 72(18), 2231–2264.*

possibility of missing a diagnosis in more than 20% of cases despite careful analysis.[1]

The most contemporary method for confirming a diagnosis of myocardial injury or ischemia is through measuring troponin levels. High-sensitivity troponin (hs-cTn) assays have replaced creatine kinase-myocardial band (CK-MB) levels as the standard diagnostic tool for assessing various forms of myocardial damage, including infarctions. Although troponin investigations can be costly, they provide highly reliable benchmarks for diagnosis.
In cases of myocardial infarction, troponin levels typically exhibit a gradual trend. Approximately 24 hours post-infarction, there is an observable increase in troponin levels, which remain elevated for about 48 to 72 hours. Subsequently, there is a gradual decline in troponin levels. It is important to note that within the first 24 hours, troponin levels may not yet be significantly elevated and might not provide reliable diagnostic information. Therefore, multiple troponin investigations may be necessary when there is suspicion of myocardial ischemia to accurately monitor the trend in troponin levels over time.

## Clinical diagnosis confirmed by troponin levels:

Troponin levels serve as a crucial guideline for assessing prognosis in patients with myocardial injury or ischemia. A higher troponin level correlates with an increased risk of mortality. Therefore, it is essential to recognize that patients with very high troponin levels may require transfer to a specialized facility. This approach helps mitigate potential complications and avoids undue responsibility. Conversely, when troponin levels are lower, there is greater scope for managing and treating the patient locally. When making decisions about patient management, I prioritize these factors to ensure appropriate care and minimize risks associated with elevated troponin levels. Troponin levels are one of the criteria that influence my decision to continue treatment for the patient.[1]

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[1] *Anderson, J. L., Adams, C. D., Antman, E. M., Bridges, C. R., Califf, R. M., Casey, D. E., Jr, Chavey, W. E., 2nd, Fesmire, F. M., Hochman, J. S., Levin, T. N., Lincoff, A. M., Peterson, E. D., Theroux, P., Wenger, N. K., Wright, R. S., Jneid, H., Ettinger, S. M., Ganiats, T. G., Lincoff, A. M., Philippides, G. J., ... American College of Cardiology Foundation/American Heart Association Task Force on Practice Guidelines (2013). 2012 ACCF/AHA focused update incorporated into the ACCF/AHA 2007 guidelines for the management of patients with unstable angina/non-ST-elevation myocardial infarction: a report of the American College of Cardiology Foundation/American Heart Association Task Force on Practice Guidelines. Circulation, 127(23), e663–e828. https://doi.org/10.1161/CIR.0b013e31828478ac*

When encountering a patient with a normal ECG, it generally provides reassurance, indicating the situation is likely safe about 80% of the time. However, there remains a 20% uncertainty factor. In such cases, adopting a 'wait and watch' approach can be prudent. This involves managing the patient while closely observing for any changes in clinical symptoms. If no ST segment changes are observed but troponin or CK-MB enzyme levels remain unchanged, continuing with a cautious 'wait and watch' strategy is feasible. Nonetheless, repeated examinations may be necessary to monitor the patient's condition closely.[1]

When troponin levels are elevated alongside ST segment elevation, it strongly suggests a clear diagnosis of myocardial infarction. In such instances, I acknowledge that managing the situation may exceed our capabilities. This guides my approach to selecting patients with ischemic cardiac pathology. If I determine that management is feasible, my treatment regimen typically includes Prabhakara Vati, Chandraprabha Vati, and Arjunarishta. These prescriptions are tailored to address the patient's individual needs and are recommended when I am confident in our ability to effectively manage their condition.

Continuing hypertension management for patients with an existing prescription is crucial. It is important to monitor and stabilize fluctuating blood pressure effectively. For those with already prescribed platelet aggregation inhibitors, maintaining the medication regimen unchanged is vital as it plays a critical role in preventing complications.

Lifestyle modifications, including dietary adjustments and regular exercise, are crucial in the management of chronic ischemic heart disease. These changes can yield positive outcomes and are central to our treatment approach. Type 2 myocardial infarction conditions, despite their common occurrence, present challenges in treatment. It is important to clarify that while managing cardiac pathology has limitations, addressing type 2 myocardial infarction remains a significant aspect of clinical practice.

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*[1] Regan, B., Boyle, F., O'Kennedy, R., & Collins, D. (2019). Evaluation of Molecularly Imprinted Polymers for Point-of-Care Testing for Cardiovascular Disease. Sensors (Basel, Switzerland), 19(16), 3485. https://doi.org/10.3390/s19163485)*

The prevalence of type 1 versus type 2 myocardial infarction varies significantly with age. In younger patients, type 1 infarctions are more common, whereas in older patients, particularly as age advances, type 2 conditions become more prevalent. Therefore, when assessing patients, age is a critical factor I consider. For younger patients, I prioritize exploring treatment options with the possibility of a type 1 infarction in mind. This approach is aimed at addressing acute and critical conditions effectively. In contrast, for older patients, there is often a greater level of stability, and management tends to be more predictable and manageable.

This age-based approach guides my decision-making when selecting treatments for patients presenting with myocardial infarction, aiming to achieve significant clinical outcomes tailored to each patient's specific needs.[1]

## Cardiovascular disease is largest cause of death in India-Million Death Study:

One of the leading causes of death in India, and notably the most prevalent, is cardiovascular disease, as reported in the 2000 general registration records. This highlights the critical importance of remaining vigilant and taking proactive measures to protect oneself against the high risk of fatal outcomes associated with cardiovascular diseases.[2]

**Indians with coronary artery diseases:**

Another critical issue is the increasing incidence of myocardial pathology, particularly among younger individuals. This trend is observable in India, where cases have been rising even among those under 30 years old, with annual increases documented over recent years. This data is not only pertinent for management strategies but also underscores the need for improved clinical awareness and identification practices.

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[1] *https://heart.bmj.com/content/103/1/10 Accessed on 10/04/2024*

[2] *Gupta, R., Guptha, S., Sharma, K. K., Gupta, A., & Deedwania, P. (2012). Regional variations in cardiovascular risk factors in India: India heart watch. World journal of cardiology, 4(4), 112–120. https://doi.org/10.4330/wjc.v4.i4.112*

Historically, there was a prevailing notion that cardiac pathology rarely affected individuals under 30 years old. However, recent statistics reveal a notable shift. From 2009 to 2019, there has been a significant uptick in cases, reaching a reported incidence of 27% by 2019. This substantial increase emphasizes the importance of heightened vigilance and early detection efforts. [1]

In India, a significant issue within coronary interventions is the distinction between interventional and non-interventional cardiologists. This division has sparked ongoing debates and has been extensively discussed in various articles and forums. While I won't delve into the controversy surrounding this divide, it is clear that interventions such as angiography have become increasingly common in management practices.

However, there is concern about the potential for unnecessary interventions in many cases. This raises questions about the appropriateness and rationale behind performing angiography and other procedures, highlighting the need for careful consideration and judgment in the approach to coronary care.[2]

People have reached a point where, at the age of 40, undergoing angiography is seen almost like getting an engine flush for your car. This perception, however, is somewhat exaggerated in my view. These procedures have become increasingly common, leading to practical clinical issues.

One challenge we encounter is managing preexisting medications in these patients. When patients are on anticoagulants or platelet aggregation inhibitors, it is crucial not to alter these prescriptions; they should be maintained as per the cardiologist's recommendations. In such cases, it is advisable to collaborate closely with a cardiologist. Once a patient has undergone procedures involving these medications, there is a persistent concern for potential complications. Therefore, keeping the option of cardiological consultations and management open is essential. This collaborative approach ensures that we can address the patient's needs with added precaution and expertise.

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[1] *https://scientificnutrition.in/nutrition/organic-foods/ Accessed on 10/04/2024*

[2] *Kaul, U., & Bhatia, V. (2010). Perspective on coronary interventions & cardiac surgeries in India. The Indian journal of medical research, 132(5), 543–548.*

In such cases, it is advisable to share the responsibility with a cardiologist because once a patient has undergone such procedures, there is always a perceived threat. Therefore, keeping the option of cardiological consultations and management open is crucial. This way, we can work together to address the patient's needs with extra precaution.

**Percentage contribution of major risk factors to ischemic heart disease.**
Another crucial and highly valuable study, published in 2019, involved a substantial number of patients from around the world. It identified the most significant cause of cardiac pathology, which is dietary risk.[1]

In response to this, our government and health policies have adopted various strategies for addressing cardiovascular pathology, with a minimum emphasis on dietary factors. It is essential to stress the importance of diet and lifestyle as part of preventive measures. We need to recommend and promote these principles, not only to the public but also to ourselves. This proactive approach is vital for overall health and well-being.

Even seemingly minor issues can have a substantial impact. For instance, consider our dietary habits and overall physical activity. Another noteworthy contributor to cardiovascular diseases is the overreliance on vehicles, particularly automobiles. Many people habitually use vehicles for short distances, which has led to a surge in the automobile industry and an increase in cardiovascular complications. The correlation between these factors and cardiovascular problems is quite evident.

These seemingly minor issues can indeed bring about significant changes and demonstrate our commitment to health and well-being in society. For instance, I have adopted a personal policy within the college campus where I refrain from using a car upon arrival until departure, opting instead to walk for short distances. While these individual changes may not lead to a monumental transformation, they serve as examples that can be recommended to patients and others alike. Such choices underscore the importance of incorporating

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*[1] India State-Level Disease Burden Initiative CVD Collaborators (2018). The changing patterns of cardiovascular diseases and their risk factors in the states of India: the Global Burden of Disease Study 1990-2016. The Lancet. Global health, 6(12), e1339–e1351. https://doi.org/10.1016/S2214-109X(18)30407-8)*

physical activity into daily routines, promoting cardiovascular health, and fostering a healthier lifestyle overall.

For example, I frequently choose to walk from the hospital to the college instead of using a vehicle, and I typically avoid the elevator. While this may pose a challenge for some students initially, it is a straightforward change that we can advocate for and personally implement. These small steps, when consistently recommended and followed, can result in notable improvements. There is an urgent need for raising awareness and educating individuals about these practices to mitigate potential health complications.

## Measures to prevent cardiac complications

There is a significant report from various sources, particularly from Germany, summarizing effective measures to prevent cardiac complications. While these are not my personal opinions, I strongly endorse them. These preventive measures are statistically grounded and can yield substantial benefits.

Firstly, reducing total cholesterol levels can halve the risk. Lowering blood pressure by six millimetres of mercury can further cut the risk by another 50%, resulting in a 40% decrease in stroke complications. Quitting smoking can reduce the risk by 50%. Maintaining a healthy body weight can contribute to a 35 to 50% risk reduction. Engaging in a minimum of 150 minutes of vigorous exercise per week can lower the risk by 55%. Including plenty of fruits and vegetables in your diet can lead to a 20% reduction in risk. When all these factors are combined, the overall risk can be slashed by 90-95%. This underscores the immense potential for preventive intervention without necessarily relying on medications. It is not just about medical management but also addressing practical, lifestyle-related factors. This approach resonates with the principles of Ayurveda, emphasizing the importance of personal practice before advocating for others.[1]

## Kaphaja Hridroga – Myopathies, Pump failure

> श्लेष्मणा हृदयं स्तब्धं भारिकं साश्मगर्भवत् ।
> कासाग्निसादनिष्ठीवनिद्रालस्यारुचिज्वराः । (A.H. Ni 5/42,43)

[1] https://cadiresearch.org/topic/prevention-and-control *( Accessed on 10/04/2024)*

The symptoms described, feeling like a stone persisting in the abdomen, are indeed specific and accurate indicators often reported by patients with congestive heart failure. This description can be traced back to Acharya Vagbhata, reflecting its longstanding recognition in medical texts as characteristic of the condition.

When the heart is burdened, it can lead to heart dilation, which is not necessarily pathological. In fact, aside from constrictive pericarditis, most heart diseases do not result in a diminished heart size; instead, hypertrophy (enlargement) of the heart is more common. This hypertrophy can typically be identified through straightforward methods like palpation and auscultation during physical examination.

Understanding the nuances of hypertrophy in the heart is critical for accurate diagnosis and management. Eccentric hypertrophy refers to an increase in heart chamber size without significant thickening of the heart muscle walls. This type of hypertrophy is often considered a physiological adaptation, particularly seen in athletes or individuals who regularly engage in vigorous exercise. It typically reflects the heart's response to increased volume load and does not necessarily indicate underlying heart disease.

In contrast, concentric hypertrophy involves thickening of the heart muscle walls, resulting in a decrease in chamber volume. This type of hypertrophy is usually pathological and can be associated with conditions like hypertension, where the heart must work harder against increased pressure to pump blood. Echocardiography is a valuable tool for diagnosing concentric hypertrophy by visualizing the structure and function of the heart chambers and walls. Therefore, while eccentric hypertrophy is often benign and related to physiological adaptation, concentric hypertrophy warrants closer evaluation and management to address the underlying causes and prevent complications associated with increased cardiac workload.

Echocardiography is essential in distinguishing between these types of hypertrophies. Concentric hypertrophy is associated with higher risk and poorer outcomes, whereas eccentric hypertrophy is typically linked to better outcomes. This factor is also considered when selecting patients for management. If a patient presents with concentric hypertrophy, it is advisable to be cautious as the prognosis may be less favourable. In cases of eccentric

hypertrophy, management can lead to better outcomes and is a safer option in comparison.[1]

**NYHA (New York Heart Association) classification**

The fundamental concept behind cardiac failure is cardiac hypertrophy. According to the current classification, cardiac failure is categorized into four classes.

In the first class, there are no symptoms and virtually no limitations on physical activity except during rigorous exercise. As the classes progress, limitations on exercise become more apparent. For instance, in the early stages, a person may easily climb one flight of stairs, but might experience breathlessness on the second flight. Identifying potential cardiac issues at this stage is crucial, as it can help postpone later complications effectively.

In advanced conditions, such as Class IV, patients experience severe limitations in physical activity and exhibit the classic clinical features of congestive cardiac oedema. While identifying these advanced stages is often more straightforward, the real challenge lies in detecting mild symptoms in the early stages. Careful auscultation is a crucial aspect of early identification.

Regardless of the patient's clinical condition, practicing auscultation of the cardiovascular system is essential. This practice can help identify risks early on, allowing for preventive measures even in asymptomatic patients. The key is to identify potential issues before symptoms manifest, which is critical for effective prevention.

**1 year mortality in Congestive cardiac failure [India and other countries comparison]**

Once a patient is identified with congestive cardiac failure, the crucial aspect to consider is the survival period. The mortality risk is significant under our conditions, regardless of whether the chosen treatment is Ayurvedic or modern. This information is essential for predicting the risk when managing patients. In a study, it was observed that regardless of the treatment approach used, there

[1] *Nakamura, M., & Sadoshima, J. (2018). Mechanisms of physiological and pathological cardiac hypertrophy. Nature Reviews Cardiology, 15(7), 387–407. https://doi.org/10.1038/s41569-018-0007-y*

was a notable risk of death from cardiac complications within one year after diagnosing congestive heart failure.

I highlight these statistics not to propose a cure for patients, but to underscore the importance of understanding and predicting the risks associated with congestive heart failure. When managing patients, this information is crucial for offering appropriate support and setting realistic expectations. It is not about promising a cure, but about recognizing effective treatments based on statistical outcomes. This approach helps healthcare providers and patients make informed decisions regarding management strategies and care plans.[1]

## Ayurvedic co-prescriptions can change the outcome:

My prescription would include these reservations, considering the selection of the patient and all possible risk factors. The diagnosis could be either Kaphaja Shotha or Kaphaja Hridroga. For Kaphaja Shotha, I would choose Punarnava Mandoora, while for Kaphaja Hridroga, I would recommend Prabhakara Vati.

- Punarnava Mandoora
- Chandraprabha Vati
- Prabhakara Vati

In such conditions, considering the reservations, patient selection, and potential risk factors, my preferred treatment involves utilizing drugs that are more specific to the cardiac pathology. While the incidence of carditis and pericarditis is relatively less common, it is increasing, especially among diabetic patients. Although statistics indicate a significant rise, the exact reasons remain unclear. Occasionally, we may encounter patients with pericarditis symptoms, particularly those with chronic diabetes. In these cases, in addition to the patient's existing prescriptions, my prescription would include:

- Kaishora Guggulu
- Mrityunjaya Rasa
- Amritarishta

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[1] *Dokainish H, Teo K, Zhu J, Roy A, AlHabib KF, ElSayed A, Palileo-Villaneuva L, Lopez-Jaramillo P, Karaye K, Yusoff K, Orlandini A, Sliwa K, Mondo C, Lanas F, Prabhakaran D, Badr A, Elmaghawry M, Damasceno A, Tibazarwa K, Belley-Cote E, Balasubramanian K, Islam S, Yacoub MH, Huffman MD, Harkness K, Grinvalds A, McKelvie R, Bangdiwala SI, Yusuf S; INTER-CHF Investigators. Global mortality variations in patients with heart failure: results from the International Congestive Heart Failure (INTER-CHF) prospective cohort study. Lancet Glob Health. 2017 Jul;5(7):e665-e672. doi: 10.1016/S2214-109X(17)30196-1.*

## Pittaja Hridroga: Carditis/Pericarditis

Among diabetic patients experiencing chronic symptoms of breathlessness, echocardiography evaluation becomes crucial, as clinical identification is often challenging. Moderate effusion may be clinically missed during auscultation, making echocardiography a necessary diagnostic tool. Over the past decade, there has been an observed increase in the number of such patients of carditis and pericarditis, although the exact reasons for this rise remain unknown. Therefore, a word of caution: for chronic diabetic patients experiencing breathlessness, persistent cough, cardiac evaluation is necessary, and clinical identification alone may not be sufficient.

# Rheumatic diseases (Krimija Hridroga)

I would consider rheumatic diseases as Krimija Hridroga, as described by Acharya Vagbhata, which corresponds closely to rheumatic diseases and is classified as a Shighrakari Vyadhi. The incidence of rheumatic diseases is quite significant in our region of India. Notably, the prevalence of these diseases in India appears to be decreasing according to I.C.M.R. statistics, with a reduction observed from 1972 to 2007.[1]

However, any patient with throat inflammation, pharyngitis, or tonsillitis has a risk factor for developing rheumatism. Therefore, monitoring the pulse rate is crucial. If the patient exhibits significant tachycardia, caution is needed. The patient should be re-evaluated, as this could be an early sign of rheumatic carditis.

The usual line of treatment recommended for rheumatic carditis is prophylactic penicillin. I have many patients where this prophylactic penicillin could be replaced by our Ayurvedic treatment for Amavata, which includes:

- Gokshuradi Guggulu
- Mrityunjaya Rasa
- Amritarishta

Avoiding penicillin prophylaxis may raise concerns, and patients may have various issues with it. Therefore, it is important to proceed with caution in this

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[1] *Reports: Indian Council of Medical Research: Government of India. Reports | Indian Council of Medical Research | Government of India. (n.d.). https://main.icmr.nic.in/content/reports*

regard. While there might be some confusion, if feasible and if the patient is agreeable, alternative preventive measures with similar efficacy can be considered. However, in cases of acute rheumatic carditis, penicillin prophylaxis may be essential. Managing this condition without penicillin prophylaxis may not be feasible, as we discussed earlier regarding the signs and symptoms of fever (Jwara and Jwara Vyadhi Lakshanas).

## Cardiac arrhythmias

Cardiac arrhythmias present a complex scenario where patients experiencing irregular heartbeats, such as skipped heartbeats, may have various underlying causes. According to our literature, a skipped heartbeat can stem from numerous reasons. It is crucial to initially identify diseases originating from non-cardiac issues. Factors such as electrolyte imbalances, thyroid disorders, alcoholism, drug use, stress, sleep apnoea, and genetic predispositions can all contribute to arrhythmias. Sometimes, there may not be a specific treatment, and individuals may live with the arrhythmia. However, if treatment is necessary, the focus should be on addressing the primary underlying disorder.

Cardiac pathologies such as coronary artery disease, hypertension, cardiomyopathy, and valve disorders can often present with arrhythmias. In these cases, a thorough evaluation is essential. While not every patient with arrhythmia necessarily has an underlying risk factor, all patients should undergo evaluation to identify potential causes.

In critical cases, such as those involving heart attack-induced injuries, effective management is crucial. While I do not propose specific treatment plans for arrhythmias, my approach focuses on identifying and addressing the root cause. When conditions exceed our capabilities, I do not hesitate to refer patients to facilities equipped for cardiac monitoring or even pacemaker placement. Some cases may indeed require the use of a pacemaker, although I refrain from specifying when it is necessary. Instead, the priority is filtering patients and identifying those at higher risk. Every patient with arrhythmia necessitates thorough evaluation, and while many may not require extensive intervention, a meticulous and comprehensive assessment is crucial for those who do.

I advocate for an approach to arrhythmias that prioritizes individualized evaluations and targeted interventions based on the underlying causes identified during assessment. This avoids a one-size-fits-all approach or prescribing specific treatments universally.

Chapter

5

# Annavaha Srotas Disorders

Acharya Sushruta has mentioned 64 types of the Mukha Roga.

> संस्थानदूष्याकृतिनामभेदाच्चैते चतुःषष्टिविधा भवन्ति।।
> शालाक्यतन्त्रेऽभिहितानि तेषां निमित्तरूपाकृतिभेषजानि।
> यथाप्रदेशं तु चतुर्विधस्य क्रियां प्रवक्ष्यामि मुखामयस्य।।
> इति मुखरोगनिदानम्। (Ch.Chi.26/122,123)

While identifying all 64 types of Aasyapka may not be feasible, I aim to focus on several varieties that are commonly encountered in clinical practice.

## Aasyapaka

### Aphthous ulcer (Mikulicz Ulcer)– Pittaja Mukharoga

The exact causes of these lesions are not fully understood, but they are often attributed to deficiencies in vitamins. The typical prescription in contemporary medicine includes B-complex vitamins, among others. Diet plays a significant role; individuals who consume spicy foods frequently tend to develop these lesions.

Characteristically, these lesions are superficial, small in size, and quite painful. They typically resolve within a few days to a maximum of two weeks, healing spontaneously without leaving a scar. These characteristics resemble those of the Pittaja variety of Mukharoga, which manifests with a reddish color and surrounding hyperemia around the lesion.

पित्तात् समूच्छ्रा विविधा रुजश्च
वर्णाश्च शुक्लारुणवर्णवर्ज्याः ।। (Ch.Chi. 26/120)

**Key points-**

- Repeated recurrence
- Usually heal spontaneously without scar
- 70 to 80% incidence

**Prescription-**

- Kamadugha Rasa (Plain)
- Sootashekhara Rasa
- Madhuyashti choorna
-

Certainly, it is true that these lesions often resolve on their own without medication. However, using the prescribed medicine can help reduce the duration of suffering and provide the patient with relief sooner, which enhances their overall comfort and well-being.

## Aphthous ulcer (Suttons' ulcer) - Kaphaja Mukhapaka

कफजे मधुरास्यत्वं कण्डूमत्पिच्छिला व्रणाः । (A. H. Ut 21/62)

The most common cause of these lesions is irritation, often due to certain foods or irritant medicines. Characteristically, they are deeper with a whitish surface, typically indicative of the Kaphaja variety of Mukharoga. These lesions take longer to heal, up to 6 weeks, and there is a tendency for multiple ulcers to form. If not treated, they may cause other ulcers or merge with existing ones, becoming larger.

Mickulicz ulcers are more common and easier to treat, whereas Sutton's ulcers take longer to cure. Due to the involvement of the Kaphaja variety, my prescription would include Gandhaka Rasayana, Arogyavardhini Rasa, and Khadirarishta/Khadiradi Vati.

**Key points**

- Deep ulcer
- Takes 6 week for healing
- Coalesce

**Prescription:**

- Gandhaka Rasayana
- Arogyavardhini Rasa
- Khadirarishta/ Khadiradi Vati

## Major aphthous ulcer

स्फोटैः सतोदैर्वदनं समन्ताद्यस्याचितं सर्वसरः स वातात्। (Su. Ni. 16/65)

The ulcer is quite deep, and the inflammation is significant. These ulcers are relatively rare and are often associated with underlying systemic pathologies such as enteric fever, leukemia, or diabetes mellitus. They tend to be large, indurated aphthous ulcers. In such cases, identification and management should focus on the underlying pathology. Once the underlying condition has been addressed, I would recommend the following treatments:

**Prescription-**

- Triphala Guggulu
- Gandhaka Rasayana
- Triphala kwatha gargling

This condition has similarity with Vataja variety of Sarvagata Vyadhi.

## Angular cheilitis - Vataja mukhapaka

कर्कशौ परुषौ स्तब्धौ कृष्णौ तीव्ररुगन्वितौ।
दाल्येते परिपाट्येते ह्योष्ठौ मारुतकोपतः।। ( Su. Ni16/5)

The exact causes of angular cheilitis are not well understood. One of its characteristic features is its location at the angles of the mouth, where scaling occurs and the mucous membrane becomes thicker and rougher, as described in the texts as Vataja Oustha Roga. These types of lesions are often seen in malnourished patients or those with poor nutrition and can also be a familial pathology in some families. Additionally, angular cheilitis can result from local irritation due to chemicals applied to the area or from diseases like psoriasis or pemphigus. When there is no specific condition like psoriasis or pemphigus found, then my treatment choice would be as follows:

**Prescription**

- Kaishora Guggulu
- Sarivadyasava
- Avipattikara Choorna

Characteristically, angular cheilitis tends to recur and persist for a long duration. In such cases where it recurs frequently and becomes troublesome, Virechana is often preferred. Most of the time, Virechana provides more definite and prolonged relief from the condition compared to Shamana Chikitsa.

## Nicotinic Stomatitis- Kapha Vataja Mukhapaka

Sushruta might not have exactly mentioned the aetiology of this condition, but it is well known that it can be caused by the consumption of nicotine, either through smoking or tobacco use, which leads to irritation. Initially, it presents as stomatitis and later progresses to sclerosis. The lesion begins as a small superficial erosion, with the surface becoming slightly elevated. Pain is typically felt only after food consumption. The condition is not limited to the buccal mucosa; it can also affect the palate and, as it progresses, the tongue surface. Changes on the tongue may include roughness, large polyps, and increased vascularity, which are typical features of nicotine stomatitis. The most important management strategy is to avoid nicotine. Many patients respond very well once they stop using nicotine.

**Prescription:**

- Arogyavardhini Rasa
- Agnitundi Vati for Vata / Kapha lakshna
- Kamadugha Rasa for Pitta lakshana
- Bhoonimbadi Kwatha- it may be related with Amlapiitta
- Triphala Kwatha gargling

In case of more Pitta lakshana, I prefer Kamadugha Rasa, and for more Vata lakshana, I use Agnitundi Vati. Although Sushruta described this condition under Kapha-Vataja Mukhapaka, clinically Pittaja lakshana may also be present. Many times, persons may have systemic symptoms related to nicotinic effects, as Acharya Sushruta has mentioned.

कण्डूर्गुरुत्वं सितविज्जलत्वं स्नेहोऽरुचिर्जाड्यकफप्रसेकौ ।
उत्क्लेशमन्दानलता च तन्द्रा रुजश्च मन्दाः कफवक्त्ररोगे ।। (Ch. Chi. 26/121)

**Key points:**

Characteristically comparatively less pain, irritation after consumption of food.

## Candidiasis- Kaphapitta /Tridoshaja

Candidiasis is often a consequence of systemic pathologies such as immunocompromised conditions like HIV, tuberculosis, diabetes mellitus, or

leukemia. These conditions create an environment where candidiasis is likely to occur. For almost every patient with candidiasis, it is crucial to identify and treat the underlying pathology. Candidiasis lesions are scattered, multiple, and typically have adherent slimy material on their surface. The entire affected area appears inflamed. Proper diagnosis and treatment of the underlying condition are essential for effectively managing candidiasis.

सर्वाणि रूपाणि तु वक्त्ररोगे भवन्ति यस्मिन् स तु सर्वजः स्यात्। (Ch. Chi.26/122)

Tridoshaja lakshanas are seen, main target of treatment is Pitta and Kapha. My treatment of plan would be:

**Management**

- Gandhaka Rasayana
- Kamadugha Rasa
- Manjishtadi Kwatha/ Khadirarishta
- Triphala Kwatha gargling

**Key points:**

- Tendency for recurrence
- Underlying pathology should be managed

## Oral Submucous Fibrosis

Delayed consequences of various forms of Paan chewing include the development of nicotine ulcers, which initially present as small, superficial erosions. Continuous physical contact of tobacco with the oral mucosa can lead to submucous fibrosis. This condition is characterized by progressive stiffness and reduced mobility of the oral tissues. Submucous fibrosis is also considered a precancerous condition, highlighting the serious long-term risks associated with Paan chewing. Early identification and cessation of Paan chewing are crucial to prevent further progression and potential malignant transformation.

Acharya Sushruta has not identified this etiology but Acharya Vagbhata described the features very clearly.

करोति वदनस्यान्तर्व्रणान् सर्वसरोऽनिलः।
सञ्चारिणोऽरुणान् रूक्षानोष्ठौ ताम्रौ चलत्वचौ।।
जिह्वा शीतासहा गुर्वी स्फुटिता कण्टाकाचिता।
विवृणोति च कृच्छ्रेण मुखं पाको मुखस्य सः। (A.H.Ut. 21/ 58-59)

Acharya Vagbhata extensively describes Sarvasara Vyadhi, where individuals cannot fully open their mouths due to complete fibrosis, reducing oral mucosa elasticity. This makes swallowing and mouth opening challenging, causing considerable pain with a grim prognosis. The condition is nearly irreversible. But patient may experience some kind of relief with following prescription.

**Treatment:**

- Kaishora Guggulu
- Gandhaka Rasayana
- Manjishtadi Kwatha
- Tila Taila Gandoosha

Tila Taila Gandoosha helps relieve symptoms and improves food intake. There is no curative treatment available, so the approach remains palliative. Since submucous fibrosis is considered a precancerous condition, it is crucial to monitor for any signs of malignancy, which may require a biopsy. Prevention is the most important aspect, and the habit of tobacco chewing should be completely stopped.

## Contact stomatitis

Very often, the cause is contact with cosmetics. When these chemicals come into contact with the body, the lips and tongue can become inflamed. While there is no specific description of this pathology in Ayurvedic texts, I would consider it a type of hypersensitive reaction. The treatment involves ensuring that the allergen is no longer in contact with the affected areas.

**Prescription-**

- Laghu Sootashekhara Rasa
- Kamadugha Rasa
- Manjishtadi Kwatha

## Leucoplakia

The exact causes are not known. Most of the time, the condition arises from either physical or chemical irritation, and it is considered a precancerous condition. When an ulcer is observed in the oral cavity, it is crucial to palpate it. If induration is found, leucoplakia should be considered as a possible cause. Many of these cases may require a biopsy. In contemporary medicine, there is no specific treatment for this condition.

But in our point of view, Acharya Sushruta has described a similar condition-

वृत्तोन्नतो यः श्वयथुः सदाहः कण्ड्वन्वितोऽपाक्यमृदुर्गुरुश्च ।
नाम्नैकवृन्दः परिकीर्तितोऽसौ व्याधिर्बलासक्षतजप्रसूतः ।।
समुन्नतं वृत्तममन्ददाहं तीव्रज्वरं वृन्दमुदाहरन्ति ।
तं चापि पित्तक्षतजप्रकोपाद्विद्यात् सतोदं पवनास्रजं तु ।। (Su. Ni. 16/55-56)

A palpable swelling that does not suppurate is considered Vrinda or Ekavrinda. When Pittaja or Raktaja symptoms are more prominent, it is considered Vrinda. When Kaphaja symptoms are more dominant, it is considered Ekavrinda. While this condition cannot be completely reversed, the patient may feel more comfortable after the following treatment. It is important to follow up with a biopsy; and if malignancy is suggested, the prognosis would be poor.

**Prescription-**

- Triphala Guggulu
- Gandhaka Rasayana
- Khadirarishta
- Triphala Kwatha gargling

## Plummer Vinson syndrome- Pandu, Kshaya upadrava

This condition occurs as a consequence of prolonged iron deficiency anemia. The characteristic appearance includes a bald tongue and dry oral mucosa. Patients often experience a diminished sense of taste. Occasionally, a membrane forms at the base of the tongue, leading to difficulty in swallowing. These symptoms are described in Ayurvedic texts under the context of Raktaja Kshaya Upadrava.

तेषामुपद्रवान् विद्यात्कण्ठोद्ध्वंसमुरोरुजम् ।।
जृम्भाङ्गमर्दनिष्ठीववह्निसादास्यपूतिताः । (A. H. Ni 5/15)

Considering Pandu my treatment would be, Chandraprabha Vati as Rasayana. Punarnava Mandoora and Draksharishta are specific drugs for Pandu. Once haemoglobin improves patient may have better feeling. Patient may require prolonged treatment.

**Prescription-**

- Punarnava Mandoora
- Chandraprabha Vati
- Draksharishta

## Oral carcinoma

The incidence of carcinoma is increasing worldwide, often due to the progression of submucous fibrosis into malignancy or sometimes from leucoplakia caused by irritation. This condition is generally incurable, and most of the time, I would not treat it with Ayurvedic medicines. Instead, patients should be referred to a centre where surgery or radiation is the preferred treatment, though the prognosis is usually poor. However, if a patient insists on Ayurvedic treatment and no other options are viable, my prescription would include Kanchanara Guggulu and Arogyavardhini Rasa as palliative care. Early identification of this condition is crucial. Oral lesions that are very fragile and present with indurated swelling need to be diagnosed at an early stage.

## Denture Stomatitis

A person who uses dentures for a long time, especially if the dentures are improperly shaped or maintained under unhygienic conditions, may experience irritation or the appearance of small fluid-filled vesicles in the affected area. There is no specific management protocol for this condition aside from ensuring that a dentist reviews the situation. The dentist may need to adjust the position of the denture or possibly change the material. The most important aspect is to accurately identify the condition and address it promptly.

## Chemotherapy Induced Oral Lesions

Common typical presentations include a hairy tongue or a dark blackish discoloration. Patients often complain of a diminished sense of taste and intolerance to mildly hot substances. The condition can resemble mucositis, where the mucosa appears very inflamed, which is typical of the Pittaja variety. Identification is relatively straightforward, as there is usually a history of chemotherapy use. Symptomatic relief can be achieved with Tila Taila Gandoosha, and Kamadugha Rasa can help reduce discomfort to a certain extent.

# Dyspepsia -Arochaka

ICD code 536.8 – Dyspepsia and other specified disorders of function of stomach. Dyspepsia could be produced due to multiple conditions and when the patient has some other systemic disorders they need to be treated.

Acharya Vagbhata has mentioned specific causes for Arochaka.

अरोचको भवेद्दोषैर्जिह्वाहृदयसंश्रयैः।
सन्निपातेन मनसः सन्तापेन च पञ्चमः।। (A.H. Ni 5/2-2)

The issue could arise from local pathology, variations in physiological conditions in the tongue or oral cavity, or even a psychological condition. Identifying the pathology will be based on the different tastes experienced by the patient, as explained in the following shloka:

कषायतिक्तमधुरं वातादिषु मुखं क्रमात्।
सर्वोत्थे विरसं शोकक्रोधादिषु यथामलम्।। (A.H. Ni 5/2-29)

Most of the time, this condition does not require specific treatment, and the best approach is modifying the diet to include light foods or practicing overnight fasting. It is important to avoid oily and irritant food substances. Overnight fasting can be particularly beneficial. If treatment is necessary, I would recommend Avipattikara Choorna or Hingvasthaka Choorna for one or two days.

## Dyspepsia -Arochaka with Avipaka

Arochaka with Avipaka denotes a prolonged abnormality in digestion that necessitates specific treatment. Patients typically experience a complete loss of taste appreciation, which is a hallmark symptom. They may also report chest or upper abdominal pain resembling gastritis, suggesting involvement of the lower gastrointestinal tract. Symptoms may include a burning sensation or heaviness in the chest area. These are common manifestations of Arochaka and Avipaka.

Not all patients with dyspepsia require extensive investigations. Current guidelines do not routinely recommend them. In general practice, patients are often prescribed proton pump inhibitors (PPI) or H2 receptor blockers without always needing further investigations such as endoscopy.

**NICE guidelines for the management of dyspepsia in adults in primary care-**
Most patients with dyspepsia can be managed without investigation. Indication for referral is based on alarming signs/symptoms:

a) Chronic gastrointestinal bleeding (either in an invisible form or presence of occult blood in stool)
b) Progressive unintentional weight loss
c) Progressive dyspepsia
d) Persistent vomiting
e) Iron deficiency anemia
f) Epigastric mass

If patient has any of alarming signs mentioned in above list, then patient has to be referred for further investigation.

Dyspepsia with no alarming symptoms and EGD± biopsies negative may be categorized as Functional Dyspepsia in which appropriate management of patients be done based on guideline issued by the gastroenterology clinics of North America, which is categorized into four.[1]

1. Predominant Heartburn – Life style modification / PPI Rx
2. Nausea/Vomiting – Anti -emetic / PPI Rx
3. Postprandial distress syndrome (Ajeerna) – Patient would have abnormality in the mobility of stomach. Investigation: Gastric emptying
4. Epigastric pain syndrome – Antidepressants, Behavioural / Hypnotherapy

It is fascinating how the description aligns closely with the categorization by Acharya Sushruta. According to his classification, Vataja symptoms primarily involve pain, Pittaja is characterized by burning sensations, and Kaphaja manifests with symptoms related to emesis. I personally consider postprandial distress syndrome akin to Ajeerna in Ayurveda.

**Management**

From our perspective, the predominant symptoms include heartburn and nausea/vomiting. I classify both of these symptoms as belonging to the Pittaja variety of Arochaka. Lifestyle modification is an essential component of management in addressing these symptoms effectively. My prescription for this condition would be

- Soota shekhara Rasa/Arogyavardhini Rasa
- Kamadugha Rasa (plain)
- Godanti Bhasma
- Avipattikara Choorna

These days, proton pump inhibitors are commonly used as over-the-counter drugs. Regular use of proton pump inhibitors can lead to rebound symptoms when discontinued. In such cases, my specific treatment approach would include Arogyavardhini Rasa, Kamadugha Rasa, and Avipattikara Choorna.

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*[1] Camilleri M. (2007). Functional dyspepsia: mechanisms of symptom generation and appropriate management of patients. Gastroenterology clinics of North America, 36(3), 649–x. https://doi.org/10.1016/j.gtc.2007.07.001*

For individuals not using proton pump inhibitors, my prescription would focus on Sootashekhara Rasa, Godanti Bhasma, and Avipattikara Choorna, particularly targeting the Pittaja subtype of symptoms. This regimen aims to manage and alleviate symptoms effectively.

## Epigastric pain syndrome

> दोषैः पृथक् सह च चित्तविपर्ययाच्च भक्तायनेषु हृदि चावतते प्रगाढम् ।
> नान्ने रुचिर्भवति तं भिषजो विकारं भक्तोपघातमिह पञ्चविधं वदन्ति ।।
> हृच्छूलपीडनयुतं विरसाननत्वं वातात्मके भवति लिङ्गमरोचके तु ।
> कण्डूगुरुत्वकफसंस्रवसादतन्द्राः श्लेष्मात्मके मधुरमास्यमरोचके तु ।
> संरागशोकभयविप्लुतचेतसस्तु चिन्ताकृतो भवति सोऽशुचिदर्शनाच्च ।
> (Su. Ut. 57/3,4,5,6)

**My prescription would be**

- Agnitundi Vati
- Sootashekhara Rasa
- Godanti Bhasma
- Avipattikara Choorna

A condition characterized by abnormal gastric emptying is termed as Ajeerna. Contemporary classification methods categorize it into delayed gastric emptying, accelerated gastric emptying, or normal gastric emptying.

Delayed or accelerated gastric emptying can be clinically assessed based on the patient's symptoms. Symptoms indicating delayed gastric emptying include heaviness in the stomach after eating, distension, and inadequate stool passage. On the other hand, accelerated gastric emptying may present with increased pain after meals and more frequent or liquid stools. Normal gastric emptying typically results in regular bowel movements and no reduction in appetite.

> अजीर्णमामं विष्टब्धं विदग्धं च यदीरितम् ।
> विसूच्यलसकौ तस्माद्भवेच्चापि विलम्बिका । (Su. Ut. 56/3)

**From an Ayurvedic point of view, Ajeerna is classified mainly under the following headings:**

- Vishtabdhajeerna (Delayed gastric emptying)
- Vidagdha - where the patient may have more burning sensation, faster movement of bowels, and digestion is not poor

- Visuchika - the patient may have diarrhoea-like symptoms
- Alasaka - the patient would be having more distension of the abdomen
- Vilambika - exactly what is mentioned as delayed gastric emptying.

The Ayurvedic classification of Ajeerna is more detailed than the contemporary approach.

## Amajeerna:

कुक्षिरानह्यतेऽत्यर्थं प्रताम्यति विकूजति ।
निरुद्धो मारुतश्चापि कुक्षौ विपरिधावति ।।
वातवर्चोनिरोधश्च कुक्षौ यस्य भृशं भवेत् ।
तस्यालसकमाचष्टे तृष्णोद्गारावरोधकौ ।। (Su.Ut.56/7,8)

Patient would have distension of stomach followed by gurgling sounds and stool would not pass regularly. These are typical feature of Alasaka which are indicative of delayed gastric emptying. My prescription would be:

- Agnitundi Vati
- Arogyavardhini Rasa
- Jeerakadyarishta (for pain)
- Kumaryasava (for reduced appetite)

## Visuchika:

मूर्च्छातिसारौ वमथुः पिपासा शूलं भ्रमोद्वेष्टनजृम्भदाहाः ।
वैवर्ण्यकम्पौ हृदये रुजश्च भवन्ति तस्यां शिरसश्च भेदः ।। (Su.Ut.56/6)

Accelerated gastric emptying is a typical feature of Visuchika. Patient complains of an increased frequency of stool passing. Symptoms include burning sensation, appearance of systemic symptoms like thirst, and rarely, dehydration-like conditions. Many times, these symptoms are related to stress. In this condition, my treatment would be-

- Sootashekhara rasa
- Anandabhairava Rasa
- Bhoonimbadi kwatha, when consistency of stool is not much liquid
- Mustakarishtha, when consistency of stool is more liquid
- Smritisagar Rasa, if stress-related symptoms appear
- The duration of treatment required would be longer than Alasaka variety.

## Vilambika:

दुष्टं तु भुक्तं कफमारुताभ्यां प्रवर्तते नोर्ध्वमधश्च यस्य।
विलम्बिकां तां भृशदुश्चिकित्स्यामाचक्षते शास्त्रविदः पुराणाः ।। (Su. Ut. 56/9)

In these conditions, as described in the text, patients often report a sensation that food neither moves up nor down after eating. They may feel the urge to defecate but are unable to pass stool. Nausea may be present, yet vomiting is difficult, and they experience continuous discomfort. These symptoms characterize the clinical presentation associated with abnormal gastric emptying, such as delayed or other related gastric disorders. That's the typical presentation of Vilambika and my prescription would be:

- Agnitundi Vati
- Arogyavardhini Rasa, when patient complains of heaviness
- Chitrakadi vati, when pain is present
- Kumaryasava
- Smritisagar Rasa- may be needed sometimes

In total, the approach of treatment is definitely better than the contemporary system can provide.

न तां परिमिताहारा लभन्ते विदितागमाः।
मूढास्तामजितात्मानो लभन्ते कलुषाशयाः ।। (Su.Ut 56/5)

The fundamental and crucial aspect is always maintaining a proper diet. A proper diet entails consuming food within physiological limits. Individuals who adhere to this dietary regimen are less likely to develop complications, and their overall health is positively impacted. Following this guideline is crucial to prevent such conditions.

# Chardi:

The controversy revolves around whether chardi should be considered a disease in itself or merely a symptom of other diseases. When vomiting presents as a symptom, thorough assessment of the patient is essential. Chardi is classified as a distinct condition only when no definite underlying pathology is identified. Sushruta mentions that the causes of chardi can vary, including physical, psychological, or systemic conditions.

अतिद्रवैरतिस्निग्धैरहृद्यैर्लवणैरति।
अकाले चातिमात्रैश्च तथाऽसात्म्यैश्च भोजनैः।।
श्रमात् क्षयात्तथोद्वेगादजीर्णात् कृमिदोषतः।

नार्याश्चापन्नसत्त्वायास्तथाऽतिद्रुतमश्नतः ।।
अत्यन्तामपरीतस्य छर्देर्वै सम्भवो ध्रुवम् ।
बीभत्सैर्हेतुभिश्चान्यैर्द्रुतमुत्क्लेशितो बलात् ।
(Su.Ut .49/3-5)

Therefore, it is crucial to assess all potential conditions that could be responsible for Chardi.

There could be multiple causes that present with vomiting. The history of alcohol consumption is the most common cause of vomiting. Additionally, the use of NSAIDs or other irritant drugs can contribute to this condition. Diseases such as hepatitis and gastroenteritis must be considered and ruled out. Diabetic pathologies like ketoacidosis should also be evaluated. Conditions resembling peptic ulcers need to be excluded as well. When there is no clear underlying condition that requires immediate intervention, a general approach to managing patients presenting with vomiting should be followed.

**Management:**
Food poisoning typically manifests with a history of consuming contaminated or unusual food within the past day or two. Vomiting tends to decrease once the stomach is emptied, and patients often experience diarrhoea as well. Additionally, a low-grade fever may accompany these symptoms, indicating toxicity from the ingested food.

**Treatment:**
Agnitundi Vati and Anandabhairava Rasa are prescribed initially, followed by a light diet such as khichadi. Patients typically respond well to this treatment, unless dehydration is present, in which case fluid supplementation may be necessary.

## Gastritis:

Burning sensation and irritation in the stomach are common symptoms, often accompanied by a distinctive pattern of vomiting and upper abdominal pain immediately after eating.

**Treatment:**

- Sootashekhara Rasa
- Kamadugha Rasa
- Godanti Bhasma along with Avipattikara Choorna occasionally

## Peptic ulcer:

It needs prolonged treatment for about three months or more.

**My prescription:**

- Sootashekhara Rasa
- Kamadugha Rasa
- Godanti Bhasma+ Avipattikara Choorna or Bhoonimbadi Kwath

When patient presents with loose stool, I would prefer Bhoonimbadi Kwath.

## Worm infestation:

- Krimikuthara Rasa,
- Agnitundi Vati for 4 days (if necessary, repeat it after a month)

## Hepatitis:

- Mrityunjaya Rasa
- Arogyavardhani vati
- Kumaryasava

It is not treatment for vomiting but it is comprehensive treatment of hepatitis, vomiting subsides by itself.

## Vestibular pathology/motion sickness:

The incidence of vomiting is typically less on an empty stomach. However, in conditions like Ménière's disease, where there is vestibular pathology, vomiting is often associated with posture. Vomiting tends to occur when the patient is upright or moving, whereas there is usually no vomiting when lying down.

**Prescription:**

- Kamadugha Rasa
- Smritisagar Rasa

These are often more useful than over the counter drugs like Promethazine.

**Key points:**

- Food poisoning – Agnitundi Vati, Anandabhairava
- Gastritis – Sootashekhara Rasa, Kamadugha Rasa
- Peptic ulcer – Sootashekhara Rasa, Kamadugha Rasa, Godanti Bhasma+ Avipattikara Choorna / Bhoonimbadi Kwath – prolonged treatment
- Worm infestation – Krimikuthara Rasa, Agnitundi Vati for 4 days, if necessary, repeat it after a month.

- Hepatitis – Mrityunjaya, Arogyavardhani, Kumaryasava
- Vestibular pathology- Kamadugha Rasa, Smritisagar Rasa
- Neurosis – Smritisagar with Saraswatarishta

Mayurpiccha Bhasma may be prescribed as a symptomatic remedy irrespective of pathology when other treatment doesn't produce satisfactory result. In cases of uraemia virtually it reduces vomiting.

# Pain in abdomen – Pain localized to upper abdomen /(Shoola)

I am referring to abdominal pain conditions where there may not be a specific underlying pathology initially, but later, underlying pathologies are identified. "Pain in abdomen" is a specific diagnosis in the current ICD-10 coding system, with code 10.1 specifically for pain in the upper abdomen. The causes of abdominal pain mentioned in the text are quite relevant in clinical practice.

वातमूत्रपुरीषाणां निग्रहादतिभोजनात् ।।
अजीर्णाध्यशनायासविरुद्धान्नोपसेवनात् ।
पानीयपानात् क्षुत्काले विरूढानां च सेवनात् ।।
पिष्टान्नशुष्कमांसानामुपयोगात्तथैव च ।
एवंविधानां द्रव्याणामन्येषां चोपसेवनात् ।।
वायुः प्रकुपितः कोष्ठे शूलं सञ्जनयेद्भृशम् ।
निरुच्छ्वासी भवेत्तेन वेदनापीडितो नरः ।। (Su. Ut. 42/77-80)

The nature of consumption of the food with regards to time, duration of intake, quality, quantity etc are the issues which are to be considered.

## Vataja Shoola

निराहारस्य यस्यैव तीव्रं शूलमुदीर्यते ।
प्रस्तब्धगात्रो भवति कृच्छ्रेणोच्छ्वसितीव च ।।
वातमूत्रपुरीषाणि कृच्छ्रेण कुरुते नरः ।
एतैर्लिङ्गैर्विजानीयाच्छूलं वातसमुद्भवम् ।। (Su. Ut. 42/82-83)

Some temporary phenomena involve abdominal pain related to diet, usually lasting for a short duration. A typical Vataja shoola manifests in individuals who do not consume food properly. This type of pain occurs frequently and is often accompanied by constipation.

**Prescription:**

- Nabhivati, Jeerkadyarishta with a few drops of Ajamoda Arka
- Agnitundi Vati (Severe Condition)

## Kaphaja Shoola

शूलेनोत्पीड्यमानस्य हृल्लास उपजायते।।
अतीव पूर्णकोष्ठत्वं तथैव गुरुगात्रता।
एतच्छ्लेष्मसमुत्थस्य शूलस्योक्तं निदर्शनम्।। (Su.Ut.42/85-86)

It often occurs after consuming food, where the patient experiences excessive salivation, heaviness in the stomach, and distressing pain.

**Prescription:**

- When more discomfort and less appetite -Agnitundi Vati
- When moderate appetite and moderate discomfort - Bhoonimbadi Kwatha/ Hingwashtaka Choorna

## Pittaja Shoola

तृष्णा दाहो मदो मूर्च्छा तीव्रं शूलं तथैव च।
शीताभिकामो भवति शीतेनैव प्रशाम्यति।।
एतैर्लिङ्गैर्विजानीयाच्छूलं पित्तसमुद्भवम्। (Su. Ut. 42/84,85)

The Pittaja variety of shoola mimics many other disease conditions involving inflammatory pathology, such as inflammation in the appendix, pelvic area, or gallbladder. It may also be associated with reflux vomiting. Symptoms can include pain and systemic signs of toxaemia like fever. In such cases, a comprehensive assessment is crucial to identify the underlying pathology.

Depending upon the location of pain, if it is on right side, we need to think of pathologies of gall bladder and gastric ulcer. Occasionally in pancreatic pathology, pain could be at the centre of abdomen. When pain is at lumbar area renal pathologies have to be considered. When it is in iliac area pelvic pathology or appendicular pathologies are to be considered. In general, we may categorise into either obstructive pathology or inflammatory pathology.

**Specific diseases entities presenting with vomiting and pain –**

- Obstructive pathologies
- Pyloric stenosis
- Intestinal obstruction
- Intra-abdominal infective pathologies
- Cholecystitis
- Pancreatitis
- Appendicitis

In infective pathologies, the quantity of vomit tends to decrease over time and may become dry. In contrast, in obstructive pathologies, the quantity of vomit typically increases gradually. Even when the stomach is empty, intestinal secretions may be vomited out in cases of obstruction.

Treatment could be based upon these specific conditions and I don't suggest any specific treatment or a generalized treatment for all these conditions. Those underlying pathologies I would consider them as Gulma, Udara and Antar vidradhi.

## Gulma

हृद्बस्त्योरन्तरे ग्रन्थिः सञ्चारी यदि वाऽचलः ।
चयापचयवान् वृत्तः स गुल्म इति कीर्तितः ।। (Su.Ut 42/4)

## Udara

कोष्ठादुपस्नेहवदन्नसारो निःसृत्य दुष्टोऽनिलवेगनुन्नः ।।
त्वचः समुन्नम्य शनैः समन्ताद्विवर्धमानो जठरं करोति ।। (Su. Ni 7/6,7)

## Antarvidradhi

अधिष्ठानविशेषेण लिङ्गं शृणु विशेषतः ।।
गुदे वातनिरोधस्तु बस्तौ कृच्छ्राल्पमूत्रता ।
नाभ्यां हिक्का तथाऽऽटोपः कुक्षौ मारुतकोपनम् ।।
कटीपृष्ठग्रहस्तीव्रो वङ्क्षणोत्थे तु विद्रधौ ।
वृक्कयोः पार्श्वसङ्कोचः प्लीह्न्युच्छ्वासावरोधनम् ।।
सर्वाङ्गग्रग्रहस्तीव्रो हृदि शूलश्च दारुणः ।
श्वासो यकृति तृष्णा च पिपासाक्लोमजेऽधिका ।। ( Su.Ni. 9/19-22)

Practically relevant methods of making diagnosis as described by Acharya Sushruta have to be considered before starting management. Some of the conditions we can manage to great extent, anyhow, there has to be a caution in all this.

## Appendicitis:

Appendicitis is generally regarded as a surgical condition, and typically, surgical intervention is recommended for most cases of appendicitis, especially when specific indications such as a total leukocyte count (TLC) exceeding 14,000/ µL and complications of obstructive appendicitis are present. However, in my approach using Ayurvedic principles, I modify these indications to include a TLC count of up to 20,000/ µL before considering surgery.

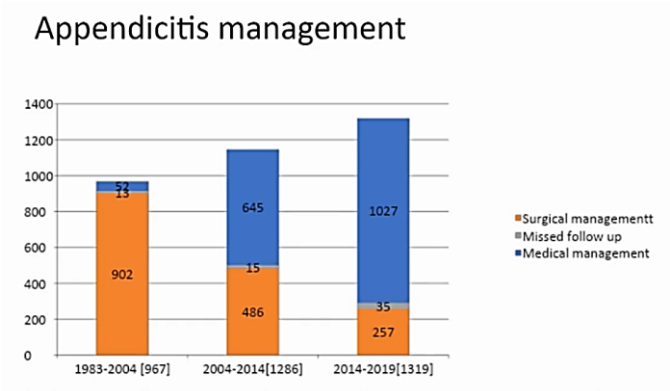
A course of antibiotics followed by Agnitundi Vati and Jeerakadyarishta can aid in resolving appendicitis, potentially allowing many patients to avoid surgery.

**Surgery is indicated:**

**Total leucocyte counts more than 20,000/ µL**

- Obstructive appendicitis
- Complications

# My clinical experience in appendicitis:




Over the years of my practice, I have observed an increase in the number of acute appendicitis cases treated from 1983 to 2019. Initially, surgical intervention was more common, but there has been a notable shift towards managing appendicitis medically. This trend is reflected in a decreasing incidence of surgical procedures over time. Ayurvedic management has played a specific role in this shift by focusing on avoiding surgery in many cases. Surgery remains advisable, especially when the total leukocyte count (TLC) exceeds 20,000/µL, particularly in cases of obstructive appendicitis where complications like intestinal perforation are more likely.

## Cholecystitis

It is considered a type of Pittaja Shoola. General guidelines dictate that every case of calculous cholecystitis should be treated surgically. However, nowadays, we can manage many patients without surgery by being selective and careful in clinical assessment. In cases of acalculous cholecystitis presenting acutely, an antibiotic regimen may be necessary initially. Recurrence can often

be effectively prevented with treatments such as Arogyavardhini Rasa, Mrityunjaya Rasa, and Kumaryasava.

**Indication for surgery**

Only when ultrasonography indicates gall bladder thickening of 8 mm or more, surgery may be considered; otherwise, in cases of acalculous cholecystitis where no stones are present, surgery is not necessary. Acute presentations of calculous cholecystitis often require surgery due to the unpredictable course of the condition.

Asymptomatic cholelithiasis or biliary sludge, which are often incidentally discovered on ultrasound without clinical symptoms, typically do not require surgery in my practice. For large single cholesterol stones, medications like Arogyavardhini Rasa and Kumaryasava administered over three to four months can help achieve complete resolution. However, multiple small stones pose a risk of migration leading to common bile duct obstruction and obstructive jaundice, necessitating surgical intervention. Patients must be educated about these risks to make an informed choice regarding their treatment.

## Pancreatitis:

Acute pancreatitis is indeed a medical emergency requiring administration of large volumes of intravenous fluids and antibiotics, making it a condition where Ayurvedic treatment alone may not suffice. However, for chronic recurrent pancreatitis, which lacks satisfactory solutions in contemporary medicine, Ayurvedic treatments such as Arogyavardhini Rasa, Agnitundi Vati, and Kumaryasava, which are typically used for Pittaja Shoola Chikitsa, have shown satisfactory results in my practice. In cases where fever accompanies the condition, prescribing Mrityunjaya Rasa has yielded reliable outcomes. Prolonged treatment durations may be necessary, focusing on managing it as per Pittaja shoola principles.

# Atisara/ Diarrhoea

The condition can arise from various causes, underscoring the importance of identifying the specific underlying cause for accurate diagnosis and treatment. Treatment strategies are tailored based on this identification of the causes.

----------स सुतरां जायतेऽत्यम्बुपानतः।।
कृशशुष्कामिषासात्म्यतिलपिष्टविरूढकैः।
मद्यरूक्षातिमात्रान्नैरर्शोभिः स्नेहविभ्रमात्।।

कृमिभ्यो वेगरोधाच्च तद्विधैः कुपितोऽनिलः।
विस्रंसयत्यधोऽब्धातुं हत्वा तेनैव चानलम्।।
व्यापद्यानुशकृत्कोष्ठं पुरीषं द्रवतां नयन्।
प्रकल्पतेऽतिसाराय---------- ।। (A.H. Ni 8/1-4)

## Vataja Atisara

The common variety which we see frequently is Amoebic colitis. In our area it is quiet endemic. Amoebic colitis is an acute presentation and has all the clinical features of Vataja Atisara.

शूलाविष्टः सक्तमूत्रोऽन्त्रकूजी स्रस्तापानः सन्नकट्यूरुजङ्घः।।
वर्चो मुञ्चत्यल्पमल्पं सफेनं रूक्षं श्यावं सानिलं मारुतेन।। (Su .Ut. 40/9,10)

Small quantity of stool passes every time. There is increased frequency with grabbing pain. We can manage it without anti-amoebic medication. Following treatment for 3 weeks or slightly more than 3 weeks is useful.

- Agnitundi Vati
- Anandabhairava Rasa
- Mustakarishta + Ajamoda Arka for 3 weeks

## Kaphaja Atisara- Amoebic colitis (Chronic)

तन्द्रानिद्रागौरवोत्क्लेशसादी वेगाशङ्की सृष्टविट्कोऽपि भूयः ।।
शुक्लं सान्द्रं श्लेष्मणा श्लेष्मयुक्तं भक्तद्वेषी निःस्वनं हृष्टरोमा ।।
(Su . Ut. 40/11,12)

Amoebic colitis typically manifests as a chronic condition. Patients often experience persistent clinical symptoms even when stool tests may show negative results for amoebiasis. Symptoms include low frequency of bowel movements, minimal tenderness, and a tendency for recurrence, which may be aggravated by certain foods. These characteristics align with Kaphaja Atisara in Ayurvedic terms. Patients may also report increased urge for defecation without significant mucus. Another hallmark of Kaphaja Atisara is the sensation of incomplete evacuation after passing stools.
My treatment would be

- Gandhaka Rasayana
- Anandabhairava Rasa
- Mustakarishta

I would consider it a fertile area where we can manage chronic colitis better than that of contemporary medicine.

A dietary restriction is important. Consuming raw food should be minimized, well cooked and less spicy food has to be advised.

## Pittaja Atisara / Bacterial Colitis

Bacterial colitis characteristically would have more of toxic symptoms and will have very high frequency of stools, many times watery.

> दुर्गन्ध्युष्णं वेगवन्मांसतोयप्रख्यं भिन्नं स्विन्नदेहोऽतितीक्ष्णम् ।।
> पित्तात् पीतं नीलमालोहितं वा तृष्णामूर्च्छादाहपाकज्वरार्तः (Su . Ut 40/10,11)

Along with watery or may be serous stools, systemic symptoms like sweating, symptoms of dehydration, fever can be observed. My prescription would be:

- Mrityunjaya Rasa
- Anandabhairava Rasa
- Mustakarishta for 1 week

In this condition, there is always a possibility of dehydration. Assessment of fluid condition is required. So, need for fluid replacement is mandatory.

## Shokaja Atisara / Irritable Bowel Syndrome

It is often due to the stress and many more causes.

> तैस्तैर्भावैः शोचतोऽल्पाशनस्य बाष्पावेगः पक्तिमाविध्य(श्य)जन्तोः ।।१३ ।।
>
> कोष्ठं गत्वा क्षोभयत्यस्य रक्तं तच्चाधस्तात् काकणन्तीप्रकाशम् ।
> वर्चोमिश्रं निःपुरीषं सगन्धं निर्गन्धं वा सार्यते तेन कृच्छ्रात् ।।१४ ।।
>
> शोकोत्पन्नो दुश्चिकित्स्योऽतिमात्रं रोगो वैद्यैः कष्ट एष प्रदिष्टः ।१५ ।।
> (Su.Ut 40/13 -15)

A characteristic feature of this condition is the sensation of incomplete evacuation after defecation or an increase in the frequency of bowel movements. Patients may feel the need to defecate but are unable to pass stool. The stool itself may vary, being either foul-smelling or without any foul odor. Onset of symptoms is often associated with stress.

- Smritisagara Rasa
- Anandabhairava Rasa / Kamadugha Rasa
- Mustakarishta/ Saraswatarishta
- Piccha basti

When a patient presents with more loose stools and less burning sensation, I prefer to prescribe Anandabhairava Rasa. Conversely, if the patient has comparatively firm stools and experiences more burning sensation, I opt for Kamadugha Rasa. Additionally, I often prescribe Mustakarishta or Saraswatarishta. In cases where oral medications are ineffective or in instances of recurrence, I recommend Piccha Basti as a preferred treatment approach.

## Ama Atisara / Grahani – Malabsorption Syndrome

Malabsorption is a challenging complication encountered frequently in clinical practice, stemming from a multitude of causes. A characteristic feature of malabsorption is incomplete absorption, leading to undigested food substances being visible in the stool. This condition significantly impacts nourishment and can manifest in systemic symptoms such as Karshya (emaciation) and general debility.

आमाजीर्णोपद्रुताः क्षोभयन्तः कोष्ठं दोषाः सम्प्रदुष्टाः सभक्तम्।।
नानावर्णं नैकशः सारयन्ति कृच्छ्राज्जन्तोः षष्ठमेनं वदन्ति।। (Su.Ut 40/15,16)

**Multiple causes**

- Post gastrectomy/ intestinal resection
- Post cholecystectomy
- Pancreatic pathology
- Hepatic disorder
- Hyperthyroidism
- Blind loop syndrome
- Genetic disorders
- Drugs

सामान्यं लक्षणं कार्श्यं धूमकस्तमको ज्वरः।
मूर्च्छा शिरोरुग्विष्टम्भः श्वयथुः करपादयोः।। (A.H.Ni 8/21)

Weight loss/ general debility is commonly seen.

**General management would include following preparations-**

- Arogyavardhini Rasa
- Agnitundi Vati for reduced appetite/Kamadugha Rasa for moderate appetite and having more Pitta
- Mustakarishta if loose stool/ Kumaryasava if reduced appetite, and weight loss

I don't say that patient can be completely cured but with this approach we can manage the patients better although the duration of treatment can vary.

## Tridoshaja Atisara – Ulcerative Colitis

Sushruta has mentioned that it is incurable in very young age and old age, also in fulminant stage.

> तन्द्रायुक्तो मोहसादास्यशोषी वर्चः कुर्यान्नैकवर्णं तृषार्तः ।।
> सर्वोद्भूते सर्वलिङ्गोपपत्तिः कृच्छ्रश्चायं बालवृद्धेष्वसाध्यः । ( Su.Ut 40/1,13)

Acute ulcerative colitis is a medical emergency. I believe that our medicine alone may not be sufficient for managing the acute phase. However, once the condition becomes chronic, our medicines are likely to be more effective than supplements or other similar treatments. So, in the chronic recurrent condition my prescription would be –

- Gandhaka Rasayana
- Anandabhairava Rasa
- Mustakarishta
- Smritisagara Rasa (if needed)
- Pichcha Basti

A patient who has been taking a drug like Sulfasalazine for an extended period can transition to Ayurvedic medication. However, the treatment duration with Ayurveda is quite long and may take several years.

## Asadhaya Atisara – Fulminant Colitis

Recurrent fulminant colitis symptoms are typically mentioned in the text and that exactly is-

> सर्पिर्मेदोवेसवाराम्बुतैलमज्जाक्षीरक्षौद्ररूपं स्रवेद्यत् ।
> मज्जिष्ठाभं मस्तुलुङ्गोपमं वा विस्रं शीतं प्रेतगन्ध्यञ्जनाभम् ।।
> राजीमद्वा चन्द्रकैः सन्ततं वा पूयप्रख्यं कर्दमाभं तथोष्णम् ।
> हन्यादेतद्यत् प्रतीपं भवेच्च क्षीणं हन्युश्चोपसर्गाः प्रभूताः ।।
> असंवृतगुदं क्षीणं दुराध्मातमुपद्रुतम् ।
> गुदे पक्वे गतोष्माणमतीसारकिणं त्यजेत् ।। ( Su. Ut 40/19-21)

The stool may have the appearance of ghee or contain a lot of fat, have a foul smell, appear decayed, or be mixed with blood. This description perfectly matches the text. It is a complicated condition that cannot be managed with conservative treatment alone and requires additional medical management.

# Constipation – (ICD code – K59.00)

आटोपशूलौ परिकर्तनं च सङ्गः पुरीषस्य तथोर्ध्ववातः ।।
पुरीषमास्यादपि वा निरेति पुरीषवेगेऽभिहते नरस्य ।। ( Su.Ut 55/ 8-9)

Patients complain of constipation with various conditions. It may not just be a symptom alone and is considered as a specific disease entity with ICD code K59.00.

In our text, Purisha Vega Avarodha is identified as the primary cause of constipation. However, in modern terminology, constipation is discussed in terms of two important factors: the consistency and form of the stool, and the frequency of defecation.

For the assessment of the consistency of the stool there is a standard Bristol stool chart. The Bristol Stool Chart categorizes stool into seven types, each associated with different bowel conditions.[1]

Type 1: Stool appears as separate hard lumps, indicating severe constipation.

Type 2: Stool is lumpy and sausage-like, suggesting mild constipation.

Type 3: Stool takes on a sausage shape with cracks on the surface, considered normal.

Type 4: Stool is smooth, soft, and shaped like a sausage or snake, also considered normal.

Type 5: Stool appears as soft blobs with clear-cut edges, suggesting a lack of fibre in the diet.

Type 6: Stool has a mushy consistency with ragged edges, indicative of mild diarrhoea.

Type 7: Stool has a liquid consistency with no solid pieces, pointing to severe diarrhoea.

**Rome IV Criteria – Constipation**

A patient must have experienced at least two of the following symptoms over the preceding 6 month:

- Fewer than three spontaneous bowel movement per week (This criterion needs to be modified as Indians consume more fibres in diet. Therefore, if a person does not pass stool once in two days, I would consider it as constipation)

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*[1] Blake, M.R.; Raker, J.M.; Whelan, K. Validity and reliability of the Bristol Stool Form Scale in healthy adults and patients with diarrhoea-predominant irritable bowel syndrome. Aliment. Pharmacol. Ther. 2016, 44, 693–703*

- Straining for more than 25% of defecation attempts
- Lumpy or hard stools for at least 25% of defecation attempts.
- Sensation of anorectal obstruction or blockage for at least 25% of defecation attempts
- Sensation of incomplete defecation for at least 25% of defecation attempts
- Manual manoeuvring required to defecate for at least 25% of defecation attempts

**I will not follow these guidelines rigidly. I would be considering them mainly under the four categories –**

- Normal – transit constipation (NTC)
- Slow – transit constipation (STC)
- Outlet obstruction (may require surgical intervention)
- Pelvic floor dyssynergia- feeling of incomplete defecation

## Secondary constipation

Another group of conditions where patient would have an incomplete defecation. Also, important point is a need to rule out history of drug consumption.

| Conditions causing incomplete defecation | Common drugs causing constipation |
|---|---|
| Diabetes Mellitus | Antidepressants |
| Hypothyroidism | Metals |
| Neuromuscular Diseases | Anti cholinergic drugs |
| Fissure | Opioids |
| Haemorrhoid | Antacids |
| Tumours | Calcium channel blockers |
| | Nonsteroidal anti- inflammatory drugs<br>Sympathomimetics,<br>Many psychotropic drugs<br>Cholestyramine, stimulant laxatives (long term use) |

Whenever possible, stop or modify the medication to provide significant relief to the patient.

## Normal transit constipation

वर्चोवाहीनि दुष्यन्ति दुर्बलाग्नेः कृशस्य च।
व्यायामादतिसन्तापाच्छीतोष्णाक्रमसेवनात् ।। (Ch. Vi. 5/21)

It is often observed that symptoms of constipation are mostly related to stress and certain specific foods. If a person suffering from constipation-like symptoms consumes chilies, they may experience better bowel movements. While chilies usually reduce bowel movements in others, they can increase bowel movements in people with normal transit. Patients may have better stool passage, although the stools are typically harder.

**Causes**

- Mostly stress induced
- Related to quality of food
- Hard stools

## Management

**Lifestyle suggestions**

One important cause of constipation is stress. People under continuous stress often struggle to maintain a regular time for defecation. Proper bowel movements can be achieved by sticking to a time schedule and developing a physiological cycle. Natural bowel movements are improved by going to the bathroom at specific times every day. Failing to maintain this schedule can lead to constipation. Key suggestions should include:

- Water intake
- Fibre diet

**Prescription:**

Avipattikara Choorna/ Draksharishta

## Slow transit constipation

मन्दस्तु
सम्यगप्युपयुक्तमुदरगौरवाध्मानविबन्धाटोपान्त्रकूजनमुख़शोषवायुस्तम्भादीन्यामलिङ्गानि दर्शयित्वा चिरात् पचति ।। (A.H. Sha. 5/1)

The symptoms are typical of Mandagni, where a patient has an impaired appetite and loose stools, though occasionally the stools may be harder. The patient would not have proper bowel movements and may experience pain, nausea, and abdominal discomfort, which are features of slow transit

constipation. This condition should be managed with Deepana Aushadhi, and buttermilk is one of the best options for treatment. A person who consumes buttermilk regularly rarely suffers from such complications.

**Symptoms**

- Passing bowel motions infrequently
- Constipation
- Uncontrollable soiling
- Abdominal pains
- Nausea
- Poor appetite

**Treatment:**
Line of treatment is simple Deepan Pachana.

> मन्दाग्निः शीलयेदामगुरुभिन्नविबद्धविट्।।
> तक्रं सौवर्चलव्योषक्षौद्रयुक्तं गुडाभयाम्।
> तक्रानुपानमथवा तद्वद्वा गुडनागरम्।। (A.H. Chi 17/5)

- Agnitundi Vati
- Arogyavardhini Rasa
- Kumaryasava
- Buttermilk (one of the best options)

**In children**

- Gandhaka Rasayana
- Kumaryasava
-

Avoiding junk food and encouraging more consumption of fruit and vegetable helps to improve slow transit constipation.

> रुग्विबन्धानिलश्लेष्मयुक्ते दीपनपाचनम्।। (A.H.Chi.1/54)

The basic approach to treatment involves maintaining Deepana and Pachana, followed by nourishing food substances like ghee and buttermilk.

## Normal and dyssynergia defecation

This is a common presentation of unsatisfactory defecation. In basic defecation physiology, there is a complex neurological control were involuntary defecation activity transitions into voluntary activity. In children, newborns, and lower animals, defecation is initially involuntary but later becomes a voluntary activity.

Continence, or the ability to control bowel movements, relies on a pressure gradient between the rectum and anus. During rest, the anal pressure is higher while the rectal pressure is lower. During defecation, the rectal pressure increases and anal pressure decreases, allowing stool to pass out. Dyssynergia refers to impairment in this mechanism.

I would consider this condition as Udavarta in Ayurveda, where there is obstruction or upward movement of Vata causing disturbances in bowel function.

वातविण्मूत्रजृम्भाश्रुक्षवोद्गारवमीन्द्रियैः ।
व्याहन्यमानैरुदितैरुदावर्तो निरुच्यते ।। (Su. Ut 55/4)

आटोपशूलौ परिकर्तनं च सङ्गः पुरीषस्य तथोर्ध्ववातः ।
पुरीषमास्यादपि वा निरेति पुरीषवेगेऽभिहते नरस्य ।। (Su. Ut. 55/8,9)

Dyssynergia are categorized into four types:

**Type 1**

During defecation, while the rectal pressure increases, the anal pressure tends to increase as well instead of decreasing, which can lead to difficulty in passing stool. A typical history includes prolonged straining during bowel movements, frequent occurrence of anal fissures, and a common practice of manually aiding stool passage with fingers. The stool passage often starts with a hard mass followed by softer stool. This condition is typically observed in individuals with Vata Prakriti in Ayurveda, indicating a dominance of Vata dosha in their constitution.[1]

**Management**

Lifestyle suggestions – Stress has to be avoided; punctuality of defecation has to be maintained. Considering Panchana and Anulomana, my prescription would be:

- Agnitundi Vati
- Arogyavardhini Rasa
- Abhyarishta
- Bala Taila Matra Basti- is indicated only when oral medication does not improve condition

*1 Rao S. S. (2007). Constipation: evaluation and treatment of colonic and anorectal motility disorders. Gastroenterology clinics of North America, 36(3), 687–x. https://doi.org/10.1016/j.gtc.2007.07.013*

**Type 2**

During straining, the rectal pressure does not increase; rather, the patient is unable to pass stool for several days, leading to hardening of the stool. When the patient finally attempts to defecate, it takes considerable time to initiate the process. Once the stool starts moving, it becomes easier for the patient to pass it. In individuals with Pitta Prakriti according to Ayurveda, it is common to experience difficulties during bowel movements. This includes straining with unsuccessful evacuation, prolonged duration of defecation, and a decrease in the frequency of bowel movements.

**Prescription:**

- Ghandhaka Rasayana
- Kumaryasava
- High fibre diet
- Occasionally Virechana also helps.

**Type 3**

The condition involves increased rectal pressure without a corresponding increase in anal pressure. Patients typically experience increased frequency of defecation but do not feel satisfied after passing stool; they often have a sensation of incomplete evacuation. It is crucial to assess these patients carefully because similar symptoms can occur with rectal masses. Other symptoms may include flatulence and abdominal pain.

- Agnitundi Vati
- Jeerakadyarishta

**Type 4**

This condition often occurs in elderly individuals or in neurological patients where muscle tone is diminished. As a result, they may not feel the urge to defecate and may pass stool involuntarily. Incontinence is the major feature in such conditions.

**Prescription:**

- Chandraprabha Vati
- Ashwagandharishta

In dyssynergia, per rectal examination is also a very useful method for checking variation in the grip. On per rectal examination, we can feel the anal grip to be more whereas the rectal grip will be lesser.

The type 1 dyssynergia is characterized by a more frequent or faster grip of both the anal and rectal muscles. In contrast, type 4 dyssynergia is characterized by a weaker grip.

### Incidence of dyssynergia

Type 1- more common > 50%
Type 2 – neurological condition [1]

## Overflow diarrhoea

This condition is commonly observed in patients with chronic constipation, where fecaliths (hardened masses of stool) are frequent. As a result, patients struggle to pass stools, often passing only liquid components. Fecaliths can be detected during a per rectal examination and may require manual removal. Sometimes, a mass in the rectum can also be identified, necessitating further evaluation and management.

- Only fluids are expelled.
- It most often has the colour of faeces.
- It is not accompanied by abdominal pain.
- It is often difficult for the patient to reach the toilet before it is expelled.
- If a gloved finger is put down into the fluid it will feel threadlike due to mucus in the stool.

## Ajeerna – Malabsorption (unspecified)

**ICD code K90.9 (1.36)**
It is always associated with the dietary probelms.

माधुर्यमन्नं गतमामसञ्ज्ञं विदग्धसञ्ज्ञं गतमम्लभावम्।
किञ्चिद्विपक्वं, भृशतोदशूलं विष्टब्धमानद्धविरुद्धवातम्।।
उद्गारशुद्धावपि भक्तकाङ्क्षा न जायते हृद्गुरुता च यस्य।
रसावशेषेण तु सप्रसेकं चतुर्थमेतत् प्रवदन्त्यजीर्णम्।।
मूर्च्छा प्रलापो वमथुः प्रसेकः सदनं भ्रमः।
उपद्रवा भवन्त्येते मरणं चाप्यजीर्णतः।।

[1] *Verma, A., Misra, A., & Ghoshal, U. C. (2017). Effect of biofeedback therapy on anorectal physiological parameters among patients with fecal evacuation disorder. Indian journal of gastroenterology: official journal of the Indian Society of Gastroenterology, 36(2), 99–104. https://doi.org/10.1007/s12664-017-0731-y*

तत्रामे लङ्घनं कार्यं, विदग्धे वमनं हितम्।
विष्टब्धे स्वेदनं पथ्यं, रसशेषे शयीत च।।
वामयेदाशु तं तस्मादुष्णेन लवणाम्बुना।
कार्यं वाऽनशनं तावद्यावन्न प्रकृतिं भजेत्।।
लघुकायमतश्चैनं लङ्घनैः समुपाचरेत्।
यावन्न प्रकृतिस्थः स्याद्दोषतः प्राणतस्तथा।। (Su.Ut 46/502-507)

Basic treatment involves 'Langhana'.

## Irritable Bowel Syndrome (Rome IV classification)

The current classification of the IBS, which I consider as a variety of Ajeerna, is:

- IBS -D (diarrhoea predominant)
- IBS -C (constipation predominant)
- IBS -M (mixed diarrhoea and constipation)
- IBS -U (unclassified; the symptoms cannot be categorized into one of the above three subtypes)

This concept is relevant to how Acharya Charaka categorized conditions such as Vidagdha (predominantly diarrhoea) and Vishtabdha (predominantly constipation), among others.

It is crucial to note that when patients exhibit alarming signs such as weight loss, iron deficiency anemia, or a family history of specific gastrointestinal diseases, thorough investigation is necessary. For other conditions, management can often follow similar principles outlined in the Shokaja atisara (diarrhoea caused by grief or stress).

## Gut Brain Axis

Many patients with neurological symptoms, psychological disorders, abnormal behaviours, and anxiety may have their root cause originating in the abdomen. This issue is increasingly recognized as an abnormality of the bowel. Bacterial colonies in the bowel mucosa can affect various systems and potentially contribute to numerous psychiatric or neurological conditions. Managing these conditions often involves improving diet and promoting better bowel movements.[1]

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*[1] Thakur AK, Shakya A. Husain GM, Emerald M. Kumar V (2014) Gut-Microbiota and Mental Health: Current and Future Perspectives. J Pharmacol Clin Toxicol 2(1):1016.*

This concept has been recently recognized in contemporary medicine, whereas it has long been explained in ancient systems. According to these ancient teachings, one's personality and activities are influenced by the type of food consumed, categorized as Satavik, Rajasik, and Tamasik Aahar. Following a diet regimen that includes more Satvik Aahara and avoids Tamasik Aahar is considered optimal for disease prevention and maintaining overall health and hygiene.

## Faecal Transplant

One treatment option for chronic Clostridium infection is faecal transplant. In 2013, the FDA released discretionary enforcement guidance, leading to a significant increase in patients undergoing fecal transplant therapy in the USA. During this procedure, gut organisms from a healthy donor are isolated from their faecal matter and transplanted into an individual suffering from a severe and chronic infection.[1]

## Arshas

अर्शोतिसारग्रहणीविकाराः
प्रायेण चान्योन्यनिदानभूताः ।
सन्नेऽनले सन्ति, न सन्ति दीप्ते, रक्षेदतस्तेषु विशेषतोऽग्निम् । । (A.H.Chi 8/164)

From an Ayurvedic perspective, protecting Agni (digestive fire) is crucial. If Agni is weakened or impaired (Agnimandhya), it can lead to various conditions such as Arsha (hemorrhoids), Grahani (malabsorption syndrome), etc. Arsha, which I refer to as Annavaha strotas dushti (disturbance of the alimentary canal), can manifest due to dysfunctional digestion.

In Ayurveda, Vataja Arsha (hemorrhoids caused by Vata imbalance) often presents with features such as fissures and is commonly associated with type I dyssynergia, where there is difficulty in passing stool despite increased rectal pressure.

तत्र मारुतात् परिशुष्कारुणविवर्णानि विषममध्यानि
कदम्बपुष्पतुण्डिकेरीनाडीमुकुलसूचीमुखाकृतीनि च भवन्ति; तैरुपद्रुतः सशूलं
संहतमुपवेश्यते कटीपृष्ठपार्श्वमेढ्रगुदनाभिप्रदेशेषु चास्य वेदना भवन्ति,
गुल्माष्ठीलाप्लीहोदराणि चास्य तन्निमित्तान्येव भवन्ति,
कृष्णत्वङ्नखनयनदशनवदनमूत्रपुरीषश्च पुरुषो भवति । ।(Su. Ni.2/10)

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[1] *Mayer EA, Tillisch K, Gupta A. Gut/brain axis and the microbiota. J Clin Invest. 2015 Mar;125(3) 926-938. doi:10.1172/jci76304. PMID: 25689247; PMCID: PMC4362231.*

## Typical presentation of Vataja Arsha

- Fissure/wound, tag like appearance
- Constipation
- Pain

**Management**

If type I dyssynergia is effectively managed, it can help prevent its recurrence. If a patient also has a fissure, it is important to treat Agnimandya (weak digestive fire) more specifically as part of the overall management approach.

**Prescription:**

- Gandhaka Rasayana
- Kankayana vati
- Avipattikara Choorna

## Pittaja Arshas:

Pitaja Arshas, which is hemorrhoids caused by Pitta imbalance, typically exhibits characteristics where the mass prolapses easily. Once it protrudes, it tends to become blocked and does not reduce easily. This is often observed in cases of type 2 dyssynergia. Initially, patients may complain of bleeding without visible masses, but once the masses protrude, they often remain externalized and become painful.

**Prescription:**

- Gandhaka Rasayana
- Kamadugha Rasa
- Avipattikara Choorna

In Raktaja Arshas, you will have a strangulation which is often seen in type 3 dyssynergia.

> रक्तजानि न्यग्रोधप्ररोहविद्रुमकाकणन्तिकाफलसदृशानि पित्तलक्षणानि च,
> यदाऽवगाढपुरीषप्रपीडितानि भवन्ति तदाऽत्यर्थंदुष्टमनल्पमसृक्सहसा
> विसृजन्ति,तस्यचातिप्रवृत्तौ शोणितातियोगोपद्रवा भवन्ति ।। (Su. Ni.2/13)

**Prescription:**

- Gandhaka Rasayana
- Kamadugha Rasa
- Usheerasava/Draksharishta

## Kaphaja Arsha

श्लेष्मजानि श्वेतानि महामूलानि स्थिराणि वृत्तानि स्निग्धानि पाण्डूनि
करीरपनसास्थिगोस्तनाकाराणि, न भिद्यन्ते न स्रवन्ति कण्डूबहुलानि च भवन्ति;
तैरुपद्रुतः सश्लेष्माणमनल्पं मांसधावनप्रकाशमतिसार्यते,
शोफशीतज्वरारोचकाविपाकशिरोगौरवाणि चास्य तन्निमित्तान्येव भवन्ति,
शुक्लत्वङ्नखनयनदशनवदनमूत्रपुरीषश्च पुरुषो भवति ।। (Su. Ni.2/12)

In the third degree prolapse, the tone is reduced, there could be a mass prolapsed and a persistent mass which doesn't get strangulated easily.

**Prescription:**

- Gandhaka Rasayana
- Chitrakadi vati
- Manibhadra leha
- Surgery is an option

Sahaja Arshas typically refers to hemorrhoids that are congenital or present from birth. It can also be associated with conditions like intestinal polyposis, where surgical management is often necessary. Patients with Sahaja Arshas may experience systemic symptoms such as anemia due to chronic bleeding from the hemorrhoids or associated conditions.

Management of the Arshas according to Ayurveda is divided into four categories:

चतुर्विधोऽर्शसां साधनोपायः।
तद्यथा- भेषजं क्षारोऽग्निः शस्त्रमिति।
तत्र, अचिरकालजातान्यल्पदोषलिङ्गोपद्रवाणि भेषजसाध्यानि,
Sमृदुप्रसृतावगाढान्युच्छ्रितानि क्षारेण,
कर्कशस्थिरपृथुकठिनान्यग्निना,
तनुमूलान्युच्छ्रितानि क्लेदवन्ति च शस्त्रेण ।। (Su. Chi.6/3)

Modern guidelines emphasize conservative management for grades one to three of hemorrhoids. Surgery is reserved for advanced cases where conservative treatments are ineffective or complications such as prolapsed or thrombosed hemorrhoids arise. For most patients, medical treatments and lifestyle adjustments are sufficient to manage their condition effectively before surgical intervention is considered. [1]

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[1] *Lohsiriwat V. Treatment of hemorrhoids: A coloproctologist's view. World J Gastroenterol. 2015 Aug;21(31) 9245-9252. doi:10.3748/wjg. v21.i31.9245. PMID: 26309351; PMCID: PMC454a 1377*

One common clinical error is the tendency for physicians to misdiagnose proctitis as hemorrhoids. Treating proctitis with the usual management for hemorrhoids can be harmful. It is important to recognize that patients presenting with rectal bleeding or a rectal mass may not necessarily have hemorrhoids, and a thorough evaluation is necessary to differentiate between these conditions.

पित्तातिसारी यो मर्त्यः पित्तलान्यतिषेवते ।
पित्तं प्रदुष्टं तस्याशु रक्तातीसारमावहेत् ।।
ज्वरं शूलं तृषां दाहं गुदपाकं च दारुणम् । (Su.Ut 40/116-117)

Proctitis, as mentioned in Sushruta Samhita, is a complication associated with Gudapaka. Patients typically present with pain before and after defecation, along with increased stool frequency and a prolonged medical history. Upon examination, areas of inflammation and mucosal congestion are visible.

In such cases, it is advisable to avoid interventional treatments, as they may worsen the patient's symptoms. Management should focus on conservative measures and possibly anti-inflammatory medications to alleviate discomfort and promote healing.

**Treatment:**

- Gandhaka Rasayana
- Anandabhairava Rasa
- Avipattikar Choorna is better choice.

## Worm Infestations

In text large number of varieties of worms are described but from the practical point of view pinworms and roundworms are effectively managed with the Ayurvedic medicines.

श्वेताः सूक्ष्मास्तुदन्त्येते गुदं प्रतिसरन्ति च ।
तेषामेवापरे पुच्छैः पृथवश्च भवन्ति हि ।।

शूलाग्निमान्द्यपाण्डुत्वविष्टम्भबलसङ्क्षयाः ।
प्रसेकारुचिहृद्रोगविड्भेदास्तु पुरीषजैः ।।

रक्ता गण्डूपदा दीर्घा गुदकण्डूनिपातिनः ।
शूलाटोपशकृद्भेदपक्तिनाशकराश्च ते ।। (Su.Ut 54/9-11)

**Prescription:**

- Krimikuthara Rasa
- Gandhaka Rasayana
- Vidangarishta
- Usually for 4 days and then to prevent the further growth,
- Arogyavardhini Rasa
- Kumaryasava as prakriti vighata chikitsa

If necessary, it can be repeated after a month and two or three courses of four days would be effective.

## Concept of Acharya Sushruta on Annavaha Srotas:

अन्नवहे द्वे, तयोर्मूलमामाशयोऽन्नवाहिन्यश्च धमन्यः,
तत्र विद्धस्याध्मानं शूलोऽन्नद्वेषश्छर्दिः पिपासाऽऽन्त्र्यं मरणं च; (Su.Sha 9/12)

We need to understand the function of the gastrointestinal tract in two main aspects: the first involves the intake of food, which travels to the stomach where it is consumed and held, while the second part serves as an absorptive region.

## Effects of Junk Food

In many patients, diseases are caused by consumption of junk food, which can affect every system of the body. The fundamental causes of Agnimandya (weak digestive fire) are outlined in Sushruta Samhita.

शुष्कं विरुद्धं विष्टम्भि वह्निव्यापदमावहेत् । । (Su.Su 46/498)

Unfortunately, the fast food and junk food market is expanding and becoming increasingly popular. Predictions suggest that the junk food market in 2024 will reach alarming levels. Another relevant study identifies the consumption of unnecessary health-promoting substances like vitamins and tonics as a common cause of many gastrointestinal abnormalities and dysfunctions. The study involved over 992,129 healthy participants across 227 trials worldwide, and its findings were analysed and subsequently published.

Interventions such as a low-salt diet have been shown to reduce the risk of all-cause mortality, while omega-3 fatty acids are protective against myocardial infarction and cardiovascular disease. Folic acid is also considered beneficial for reducing the risk of stroke. However, the combination of calcium and vitamin D has been found to increase the risk of stroke. Other interventions have shown no significant effects.

Therefore, many so-called health-promoting substances are either harmful or have no significant effect, except for low-salt diet, omega-3 fatty acids, and folic acid. It is important to avoid their indiscriminate use.[1]

Hence, one needs to take care of the food and follow the regimes of the consumption of the food as explained below-

> तत्र खल्विमान्यष्टावाहारविधिविशेषायतनानि भवन्ति; तद्यथा-
> प्रकृतिकरणसंयोगराशिदेशकालोपयोगसंस्थोपयोक्त्रष्टमानि (भवन्ति)।।
> (Ch.Vi 1/21)

**And the pattern of food consumption in terms of –**

> तत्रेदमाहारविधिविधानमरोगाणामातुराणां चापि केषाञ्चित् काले प्रकृत्यैव हिततमं
> भुञ्जानानां भवति- उष्णं, स्निग्धं, मात्रावत्, जीर्णे वीर्याविरुद्धम्, इष्टे देशे,
> इष्टसर्वोपकरणं, नातिद्रुतं, नातिविलम्बितम्, अजल्पन्, अहसन्, तन्मना भुञ्जीत,
> आत्मानमभिसमीक्ष्य सम्यक्।। (Ch.Vi.1/24)

Following these dietary regulations is crucial. We need to ensure that healthy eating habits are reintegrated into our culture, which can significantly benefit society. Careful assessment and mindful consumption of food can prevent diseases and contribute to maintaining overall health within the community.

[1] *Khan SU, Khan MU, Riaz H, et al. Effects of nutritional supplements and dietary interventions on cardiovascular outcomes. Ann Intern Med. 2019; 171:190-198*

Chapter

6

# Ayurvedic Management of Hepatobiliary Disorders

Assessment of Dosha, Dushya (body tissues), and Lakshana (symptoms) in a patient forms the most important criteria for suggesting or prescribing any medicines. The relationship between Rakta (blood) and Yakrit (liver) - Pliha (spleen) is described in all Ayurvedic texts. However, it is noteworthy that diseases related to the Yakrit (liver) are rarely discussed as a primary subject throughout these texts.

## Diseases of Yakrit

> सर्वाङ्गप्रग्रहस्तीव्रो हृदि शूलश्च दारुणः ।
> श्वासो यकृति तृष्णा च पिपासाक्लोमजेऽधिका ।। (Su. Ni. 9/22)
>
> सव्येतरस्मिन् यकृति प्रदुष्टे ज्ञेयं यकृद्दाल्युदरं तदेव ।। (Su. Ni. 7/16)

In the Ayurvedic texts, particularly in Charaka and Sushruta Samhitas, the focus on liver-related conditions predominantly centers around Yakritodara. Even within this context, the description is limited, with significant emphasis on the Plihodara condition. According to Acharya Charaka and Acharya Sushruta, when a condition resembling Plihodara manifests on the right side, it is termed Yakritodara. Further elaboration or descriptions beyond this point are notably absent in the texts.

The textbook provides minimal descriptions of the Yakrit (liver), which appears to be one of the least described organs in Ayurvedic texts. References to the

Yakrit often revolve around its role in Aahara (food), such as its presence in Aahara dravya (food substances) like Kalakhanda, and its significance as a resource in Mamsa dravya (meat). Occasionally, the color of the Yakrit is mentioned in relation to disease presentations like hemorrhoids. However, discussions on specific Yakrit vyadhi (liver diseases) are sparse.

It is paradoxical that though Ayurveda is widely believed to have effective treatments for various liver diseases, and many Ayurvedic pharmacies offer products specifically for liver health, the description of liver diseases in traditional Ayurvedic textbooks is limited, suggesting a gap in the theoretical understanding of liver diseases in Ayurveda. Despite this limitation, Ayurvedic texts do provide effective treatments for many liver disorders, indicating a disconnect between the theoretical understanding and practical application of Ayurveda in treating liver diseases.

Despite these minimal descriptions, Ayurveda offers effective treatments for patients with hepatic disorders. This presents an interesting issue in understanding and applying Ayurvedic principles to liver health.

The liver is a crucial organ with multifaceted functions, often regarded as the body's largest chemical factory. Multiple diseases can potentially lead to liver failure. When the liver fails, it typically manifests in two ways: acute hepatic failure or chronic hepatic failure. In many cases, the true cause of the disease lies in the background, and effective management hinges primarily on addressing the type and severity of liver failure. Managing this failure is paramount and serves as the primary criterion in the treatment of hepatic pathologies, while addressing underlying diseases and pathologies follows subsequently.

From this perspective, let's discuss the issues in the following order: first, the types and stages of hepatic failure, and then a brief overview of specific disease conditions that can lead to these failures.

**Definition of acute liver failure**

Acute hepatic failure typically presents in a distinctive manner. While jaundice is commonly associated with hepatic pathology, the definition of hepatic failure also encompasses coagulation disorders. In all hepatic disorders, there is a risk

of prolonged coagulation times, leading to increased bleeding tendencies in affected patients. This bleeding tendency is the primary criterion for diagnosis of hepatic pathologies in every acute hepatic failure. It is very important.

Acute hepatic failure is defined as a condition where the prothrombin time (PT), a measure of blood clotting time, is prolonged by 1.5 times or more.

- International Normalized Ratio (INR) ≥ 1.5
- Neurological dysfunction with any degree of hepatic encephalopathy.
- No prior evidence of liver diseases.
- Diseases courses of ≤ 26 weeks

This condition is also characterized by neurological dysfunction due to ammonia toxicity. In hepatic failure, the liver's inability to convert ammonia into urea, a non-toxic substance, results in elevated ammonia levels that can irritate nerve fibers, leading to various degrees of hepatic encephalopathy. Symptoms can range from mild confusion to profound coma, providing crucial diagnostic clues.

According to international standards, hepatic failure develops over a period of less than four weeks and typically occurs without underlying chronic liver disease. Any patient presenting with these signs and symptoms is considered to have acute hepatic failure.

There is some confusion regarding the universally accepted duration of acute hepatic failure. While it is commonly believed to be less than four weeks, the World Health Organization (WHO) extends this timeframe to around 26 weeks. According to WHO guidelines, acute hepatic failure should not exceed 26 weeks in duration; if symptoms persist beyond this period, the condition is classified as chronic hepatic failure.

However, understanding the duration alone is insufficient for developing effective management strategies. Additional factors such as the underlying cause of liver failure, severity of symptoms, and complications like hepatic encephalopathy need to be carefully considered in the formulation of treatment plan.

**Subclassification of acute liver failure**

From a management point of view, acute hepatic failure needs to be further classified into hyperacute, acute, and subacute. This classification is important when selecting patients and planning for their management.

In hyperacute hepatic failure, the most critical issues are related to bleeding time and coagulation abnormalities. Patients may experience sudden bleeding tendencies before the onset of jaundice. This variation influences how patients present: some may primarily exhibit bleeding symptoms without significant jaundice, while others may initially present with jaundice and less severe coagulation impairments. This variability affects immediate management decisions.

Conversely, in subacute hepatic failure, jaundice becomes the predominant and often initial manifestation. Coagulation issues may also be present but are typically less severe compared to hyperacute cases. Understanding these different presentations is crucial for tailoring appropriate management strategies for each patient.

A patient experiencing acute bleeding tendencies requires immediate and intensive management. Delay in addressing the bleeding can lead to immediate fatality. Hyperacute conditions, which progress rapidly, often require emergency medical interventions beyond what Ayurvedic management can provide. On the other hand, subacute conditions, frequently observed in viral hepatitis cases, are more manageable. While not all patients fit this description, a majority of viral hepatitis cases present as subacute or acute liver failure with jaundice as a prominent clinical feature. Neurological impairment and encephalopathy tend to be milder in subacute cases compared to other hepatic conditions. Understanding these distinctions is crucial for tailoring appropriate treatment plans and interventions based on the severity and progression of liver dysfunction in each patient.[1]

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[1] *Clinical Practice Guidelines on the management of acute (fulminant) liver failure. J Hepatol 2017; 66:1047-81*

Paracetamol misuse or overdose is identified as one of the leading causes of acute and hyperacute hepatic failure. In India, the incidence of hyperacute hepatic failure may appear lower statistically due to the higher prevalence of viral-induced liver pathologies. Conversely, globally, where viral hepatitis is less common, paracetamol-induced hepatitis assumes greater significance, contributing to a higher incidence of acute liver failure cases. These observations are supported by referenced data rather than personal opinion.[1] [2] [3]

**Clinical manifestations of acute hepatic failure**

As previously discussed, acute hepatic failure is a severe condition that impacts not only the liver but also has profound effects on multiple organ systems throughout the body. When the liver fails, it triggers a cascade of effects that can complicate management significantly. Each patient requires a thorough individual assessment, and the management plan must account for the systemic involvement and potential complications affecting various organs.

The outcomes of acute hepatic failure can vary widely among patients. While some individuals may spontaneously recover with appropriate treatment, others may experience more severe consequences despite optimal management efforts. This variability underscores the importance of tailored approaches in clinical management to address the diverse manifestations and challenges presented by acute hepatic failure.[4]

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[1] *O'Grady, J. G., Schalm, S. W., & Williams, R. (1993). Acute liver failure: redefining the syndromes. Lancet (London, England), 342(8866), 273–275. https://doi.org/10.1016/0140-6736(93)91818-7*

[2] *Bernal, W., Auzinger, G., Dhawan, A., & Wendon, J. (2010). Acute liver failure. Lancet (London, England), 376(9736), 190–201. https://doi.org/10.1016/S0140-6736(10)60274-7*

[3] *European Association for the Study of the Liver. Electronic address: easloffice@easloffice.eu, Clinical practice guidelines panel, Wendon,, J., Panel members, Cordoba, J., Dhawan, A., Larsen, F. S., Manns, M., Samuel, D., Simpson, K. J., Yaron, I., EASL Governing Board representative, & Bernardi, M. (2017). EASL Clinical Practical Guidelines on the management of acute (fulminant) liver failure. Journal of hepatology, 66(5), 1047–1081. https://doi.org/10.1016/j.jhep.2016.12.003*

[4] *Montrief, T., Koyfman, A., & Long, B. (2019). Acute liver failure: A review for emergency physicians. The American journal of emergency medicine, 37(2), 329–337. https://doi.org/10.1016/j.ajem.2018.10.032*

In patients with hepatic failure, assessing the renal system is crucial due to the risk of developing hepatorenal syndrome, a condition that affects kidney function. This syndrome can lead to decreased urine output, electrolyte imbalances such as potassium loss, and reduced urine production. Managing fluid accumulation is a primary concern, as conventional diuretics are not suitable for hepatic failure cases; instead, potassium-sparing diuretics are often necessary.

Fluid retention can progress to cardiac complications, causing fluid overload and impairing heart function. This may lead to cardiac failure or related issues. Additionally, fluid accumulation can affect the lungs, leading to pulmonary congestion and respiratory difficulties.

Ammonia toxicity, a consequence of hepatic failure, poses a significant risk to brain function. Hepatic encephalopathy can manifest initially as confusion and may progress to a deep coma. Monitoring and assessing the severity of encephalopathy are crucial due to its impact on neurological function.

Beyond these, other organ systems in the body can also be affected due to the systemic nature of hepatic failure, highlighting the complexity and multi-organ involvement that necessitates comprehensive management strategies.

In hepatic failure, collagen tissue is profoundly affected, leading to increased fragility of collagen fibres. This can manifest as characteristic subcutaneous haemorrhages, often appearing as web-like markings on the skin. These clinical signs are important indicators of the condition's severity.

In advanced stages of hepatic failure, the impact extends to the bone marrow, where it disrupts hemopoiesis—the process of blood cell production. This disruption affects the production of red blood cells and other essential blood components, further complicating the patient's health.

These manifestations underscore the systemic nature of hepatic failure, highlighting its far-reaching effects on multiple physiological processes beyond liver function alone. Management of such conditions requires a comprehensive approach that addresses not only liver dysfunction but also its implications on collagen integrity, haematopoiesis, and overall systemic health.

**Principal aetiologies of acute hepatic failure:**
The primary and most frequent cause of acute hepatic failure is viral hepatitis. This condition leads to a rapid deterioration of liver function and is commonly encountered in clinical settings. Another significant category involves vascular disorders affecting liver blood flow, often due to abdominal malignancies causing secondary effects. Budd-Chiari syndrome, characterized by hepatic vein obstruction, can complicate matters, particularly in cases associated with alcoholism. Additionally, pregnancy and the use of hepatotoxic drugs are notable causes of acute hepatic failure, underscoring the diverse etiological factors contributing to this critical condition.

Many drugs used in clinical practice, including antibiotics, carry the risk of hepatotoxicity. A notable characteristic of these drugs is their enterohepatic circulation, where they undergo metabolism in the liver upon initial administration. Subsequently, excreted drug molecules can be reabsorbed, potentially leading to cumulative toxicity over time. Signs of hepatic failure may not manifest in the initial stages of drug administration, which can be misleading. However, prolonged use of hepatotoxic drugs can eventually result in acute or chronic hepatic failure.

There are established protocols for prescribing such medications, emphasizing regular review of dosages and, when necessary, dose adjustment or reduction. Unfortunately, adherence to these protocols can sometimes be lacking in clinical practice. This oversight may lead to patients receiving prolonged courses of medications at unchanged dosages, increasing the risk of hepatic failure. Proper vigilance and adherence to dosage management protocols are crucial to mitigate these risks and ensure patient safety.

Prescriptions, especially those involving multiple medications, require meticulous review, especially when hepatotoxic drugs are involved. Certain commonly prescribed medications, such as Pyrazinamide used in tuberculosis treatment, and Rifampicin, are recognized for their potential to induce hepatic failure. Pyrazinamide, in particular, can be insidious as signs of hepatic failure may not appear until one or two months after initiation, earning it the reputation of a "silent killer."

To mitigate these risks, healthcare providers should consider modifying or withdrawing such drugs from prescriptions, especially in patients with underlying liver conditions or susceptibility factors. This proactive approach can help prevent the onset of hepatic failure and ensure patient safety during treatment. Regular monitoring and awareness of potential adverse effects are essential components of managing medications with hepatotoxic potential.

Tonics, which often contain preservatives, can contribute to cumulative toxicity when consumed excessively. Many patients consume various tonics without fully understanding the potential harm they may pose. It is important to identify and address tonics containing preservatives as part of efforts to prevent hepatic failure. Although practitioners may not always recognize this risk, reducing the number of tonics a patient consumes has been shown to be beneficial in preventing chronic health conditions. By promoting awareness and ensuring judicious use of tonics, healthcare providers can help mitigate the risk of hepatic toxicity and safeguard patient health. Regular monitoring and patient education are also essential to prevent unintended harm from tonics and other supplements. [1]

**Etiology of Hepatic failure**

In India, viral hepatitis is the leading cause of acute hepatic failure, responsible for 44% of cases. The incidence of viral hepatitis is notably high. Conversely, in Western countries such as the USA and England, paracetamol-induced hepatic failure is the predominant cause, accounting for 57% of cases in the USA. The incidence ratio of hepatic failure between India and the USA is approximately 25:1, meaning there are 25 cases in India for every one case in the USA.

It is important to highlight that in India, many patients with drug-induced conditions, including those caused by paracetamol, are often categorized under "unknown" causes. This observation is not being made as a critique of Ayurveda or any particular medical system but rather is an acknowledgment of existing

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[1] *European Association for the Study of the Liver. Electronic address: easloffice@easloffice.eu, Clinical practice guidelines panel, Wendon, J., Panel members, Cordoba, J., Dhawan, A., Larsen, F. S., Manns, M., Samuel, D., Simpson, K. J., Yaron, I., EASL Governing Board representative, & Bernardi, M. (2017). EASL Clinical Practical Guidelines on the management of acute (fulminant) liver failure. Journal of hepatology, 66(5), 1047–1081. https://doi.org/10.1016/j.jhep.2016.12.003*

gaps in our recording and reporting system. The World Health Organization (WHO) has raised concerns about India's health delivery system, particularly regarding issues related to hepatic viruses, and has urged India to review and improve its system. This concludes the discussion on the causes of acute hepatic failure.

Chronic hepatic failure is not clearly defined but generally refers to liver failure lasting more than four weeks, with evidence of fibrosis or necrosis in the liver. This condition is distinct from cirrhosis, which is characterized by necrosis, fibrosis, and regeneration of the liver, leading to partial regeneration and other related issues.

In chronic hepatic failure, jaundice may not be a typical symptom. Instead, hypoalbuminemia, indicated by low albumin levels, is commonly observed. Albumin, an essential protein synthesized by the liver, plays a critical role in diagnosing chronic hepatic failure. In the past, diagnosis relied on the albumin-globulin ratio, but now albumin can be measured directly. An albumin level below 3.5 g/dL is one of the most common indicators of chronic hepatic failure. Unfortunately, albumin assessment is often missed in routine hepatic pathology investigations due to negligence or oversight. This omission can lead to undiagnosed cases of chronic hepatic failure. Therefore, it is crucial to include albumin level assessment in hepatic function tests or liver function tests to ensure accurate diagnosis and treatment.

## Acute on chronic liver failure

Another variation we frequently encounter is acute-on-chronic hepatic failure. This occurs when a patient with chronic hepatic failure suddenly develops acute liver failure. Unfortunately, this condition often has a dire prognosis, with a mortality rate approaching 100%, despite available treatments. Liver transplantation is currently the only viable solution.

Acute-on-chronic hepatic failure can be misleading in its clinical presentation. Patients may present with symptoms of acute sepsis or acute septic pathology, which can obscure the underlying hepatic failure. Consequently, the hepatic failure might be missed, and the patient may appear to have an uncontrolled infection in another area, such as the lungs (pulmonary infections), gastrointestinal tract (resulting in mesenteric vein thrombosis and persistent

rectal bleeding), or skin (leading to significant pyoderma-like presentations). In these cases, even though there is a septic pathology, the total leukocyte count may not be as elevated as expected. Normally, an elevated leukocyte count is a key indicator of the severity of infections. However, in acute-on-chronic hepatic failure, the total leukocyte count is often only moderately raised or, in some cases, even lower than normal, despite the presence of acute sepsis. This can lead to a misleading clinical presentation, complicating diagnosis and treatment.[1]

## Hepatitis Viruses

Let's discuss the general issues surrounding acute and chronic hepatitis. Among the diseases we treat, viral hepatitis is the most common. Many people mistakenly believe that all types of viral hepatitis are the same, but this is not the case. There are several distinct types of hepatitis viruses, including A, B, C, D, and E, with the possibility of more being identified in the future. Clinically, we observe that most of our patients have hepatitis A, followed by hepatitis B. Therefore, let's focus on discussing hepatitis A and B in more detail.

Hepatitis C is an emerging issue, increasingly recognized as a significant health concern. Information about hepatitis C in the Indian context is limited, but the WHO has provided guidelines to improve screening methods for this virus. Initially, hepatitis C was thought to be primarily associated with kidney transplantation or dialysis therapy, specifically affecting dialysis patients. However, it is now understood that this is not the case.

The primary difference between hepatitis A and B is crucial. Hepatitis A is transmitted via the fecal-oral route, typically through contaminated food. In contrast, hepatitis B is transmitted through body fluids such as blood, serum, and through sexual contact. The hepatitis B virus can cause infections through fluid exchange.

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[1] *Siba, Y., Obiokoye, K., Ferstenberg, R., Robilotti, J., & Culpepper-Morgan, J. (2014). Case report of acute-on-chronic liver failure secondary to diffuse large B-cell lymphoma. World journal of gastroenterology, 20(44), 16774–16778. https://doi.org/10.3748/wjg.v20.i44.16774*

Another important distinction is the incubation period. Hepatitis A usually has an incubation period of about 14 to 20 days, or 2 to 3 weeks. In contrast, hepatitis B has a much longer incubation period, sometimes up to 100 days, making it easier to miss the connection between the infection and its symptoms. Hepatitis C has an even longer incubation period, up to six months. These variations in incubation periods can lead to clinically misleading situations.

Regarding other hepatitis viruses, they are currently not as significant from our clinical standpoint.

**Number of reported hepatitis outbreaks by state in India, 2011 -2013:**

From 2011 to 2013, the number of reported hepatitis outbreaks in India varied by state. Hepatitis A and B are very critical in our management and patient selection, with hepatitis C also becoming increasingly important. The outcomes for hepatitis A and B are different, so it is important to discuss these differences to some extent.
Before delving into those differences, it is worth noting that hepatitis A often presents as an epidemic, and India is considered a significant hotspot for hepatitis A, consistently having the highest incidence rates. This makes understanding and managing hepatitis A particularly crucial in the Indian context.[1]

**Changing trends in Hepatitis-A epidemics**
An interesting observation about hepatitis A is its historical seasonal presentation. Initially, it was predominantly seen during the summer or rainy season, particularly peaking in July. During this period, incidence rates were higher compared to other seasons like winter. However, our national statistics from 2007 to 2011 indicate a changing trend in its incidence pattern over the past four years.

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[1] *Kumar, T., Shrivastava, A., Kumar, A., Laserson, K. F., Narain, J. P., Venkatesh, S., Chauhan, L. S., & Averhoff, F. (2015). Viral Hepatitis Surveillance--India, 2011-2013. MMWR. Morbidity and mortality weekly report, 64(28), 758–762. https://doi.org/10.15585/mmwr.mm6428a3*

Currently, hepatitis A is becoming prevalent almost year-round, although the highest incidence still occurs during the summer months, especially in North India during the rainy season in July. Previously, the virus was most active during this specific period, with lower activity observed in other seasons. Now, its presence throughout the year suggests the virus's ability to thrive in various weather conditions, adapting to ensure sustained transmission.[1]

**The basic difference between Hepatitis-A and Hepatitis-B**

The hepatitis A virus elicits an immune response where immunoglobulin levels rise, remaining elevated for up to approximately two months. After this period, there is no longer infectivity, indicating the patient has recovered. Once symptomatic relief occurs, immunoglobulin traces diminish from the body. In contrast, with hepatitis B virus (HBsAg), the immune response is different. Immunoglobulin levels peak early, lasting for one to two months initially, but can persist for many years or even a lifetime. The presence of immunoglobulin can indicate chronic infection where the virus remains dormant in the body. This aspect of hepatitis B is concerning because many carriers may be clinically asymptomatic yet test positive in their serum. These individuals can silently transmit the virus to others without showing symptoms themselves.

Therefore, when managing a patient with hepatitis B, it is crucial to screen individuals who have had contact with the patient and assess the potential contamination of serum products. Currently, universal screening criteria are in place. For instance, it is mandatory to screen for HBsAg before collecting blood for the purpose of transfusion. This screening requirement is essential not only for preventing transmission through blood transfusions but also for ensuring safety in procedures involving injections, syringes, needles, and surgical settings where contamination is possible. These measures help mitigate the risk of hepatitis B transmission in healthcare settings and beyond.

If a patient undergoing surgery tests positive for HBsAg, there is a risk for the entire surgical team, including surgeons and other healthcare personnel.

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*[1] Singh, M. P., Majumdar, M., Thapa, B. R., Gupta, P. K., Khurana, J., Budhathoki, B., & Ratho, R. K. (2015). Molecular characterization of hepatitis A virus strains in a tertiary care health set up in north western India. The Indian journal of medical research, 141(2), 213–220. https://doi.org/10.4103/0971-5916.155577*

Conducting a thorough risk assessment in such cases is crucial, not only to prevent transmission to others but also because HBsAg positivity can lead to delayed complications. These complications may manifest years later, such as the development of hepatocellular carcinoma.

Therefore, it is essential to carefully assess these patients, implement appropriate infection control measures during surgery, and effectively manage their hepatitis B condition to minimize risks to both the patient and healthcare providers. This approach ensures comprehensive care and reduces the potential long-term consequences associated with hepatitis B infection.

**Clinical outcomes of Hepatitis B infection**

I consider all these viral hepatitis, both A and B, as Pittaja Jwara and not Kamala. I don't consider this as Kamala. Kamala, as mentioned in the text is a complication of Pandu.

**Pittaja Jwara**

वेगस्तीक्ष्णोऽतिसारश्च निद्राल्पत्वं तथा वमिः ।
कण्ठौष्ठमुखनासानां पाकः स्वेदश्च जायते ।।
प्रलापः कटुता वक्त्रे मूर्च्छा दाहो मदस्तृषा ।
पीतविण्मूत्रनेत्रत्वं पैत्तिके भ्रम एव च ।। (Su. Ut. 39/31,32)

Samhitas would describe hundreds of diseases where there could be a yellowish discoloration. I consider it as Pittaja Jwara, and I treat all the patients with hepatitis as Pittaja Jwara. The differences, in terms of A and B, would be in terms of the total outlook about the treatment. But my prescription would be the same. The description in the text is exactly the same, like where you have a Tikshna vega and Vami, i.e., the vomiting or gastrointestinal tract abnormality. Pralapa, where the patient would have the possibility of encephalopathy signs and even the possibility of bleeding from the oral or other areas. In advanced stages, it can result in hepatic coma like Mada, Murcha, etc., which can also be the other clinical signs. Hence, it is very practical to consider all the hepatitis variety patients as a Pittaja Jwara.

**Encephalopathy**

स गात्रस्तम्भशीताभ्यां शयनेष्सुरचेतनः ।।
अपि जाग्रत् स्वपन् जन्तुस्तन्द्रालुश्च प्रलापवान् ।

संहृष्टरोमा स्रस्ताङ्गो मन्दसन्तापवेदनः ।।
ओजोनिरोधजं तस्य जानीयात् कुशलो भिषक् ।। (Su.Ut. 39/43,44,45)

In advanced stages of hepatitis, particularly when encephalopathy occurs, it is described in traditional texts as "Ojo visramsa." This complication can arise from conditions categorized as Pittaja jwara or Sannipataja jwara, both of which involve imbalances of Pitta and other factors. The outcome, "Ojovisramsa, yasya pittanila samuchhayata," reflects the severity when Pitta and Vata imbalances lead to encephalopathy, which is considered difficult to treat ("Asadhya").

These texts emphasize that when encephalopathy develops due to these imbalances, it becomes a critical condition ("Asadhya"). Understanding and recognizing these signs are crucial for effective management and intervention in hepatitis cases, especially in advanced stages where such complications may manifest.

**Management of Hepatitis-A and Hepatitis-E**

दीपनी पाचनी लघ्वी ज्वरार्तानां ज्वरापहा ।
अन्नकाले हिता पेया यथास्वं पाचनैः कृता ।। (Su.Ut. 39/109,110)

When a patient presents with a history of jaundice and fever, typically associated with hepatitis conditions, several key investigations are necessary. Liver function tests are essential, with particular attention to the albumin level, as it is a crucial indicator of liver health. Prothrombin time is another important criterion to assess liver function and coagulation status.

Screening for HBsAg is also vital. It is important to note that HBsAg may not be detectable in patients infected with the hepatitis B virus during the first week. Therefore, it is often necessary to repeat the HBsAg test after about two weeks if the initial test is negative. Additionally, an ultrasound (USG) abdomen is necessary to determine if there are any chronic changes in the liver, such as fibrosis. However, identifying fibrosis or other hepatic changes is not the primary focus at this stage.

The management of hepatitis A is particularly important. Hepatitis A is usually a self-limiting disorder, meaning that patients can recover even without medication, provided there are no complications. The best way to prevent complications is through rest. However, rest doesn't just mean sleeping; it also

involves giving the gastrointestinal tract a break. The digestion of food is the body's most energy-consuming activity, even more so than physical exertion like climbing stairs.

Therefore, the principle of Langhana is crucial in managing hepatitis A. In the context of Jwara, Langhana is essential, but it must be prioritized even more in hepatitis. Langhana doesn't mean fasting; it means administering Laghu Dravyas. This approach is more important than any medication or specific diet. The recommended hepatoprotective diet should be high in carbohydrates, with less protein and no fat. This aligns with the principles of 'Deepanam and Paachanam' as mentioned in traditional texts. This diet supports the liver and aids in recovery by reducing the digestive load on the body.

The only important point to emphasize is that I avoid treating hyperacute liver failure conditions, as our medications cannot manage them effectively. As mentioned earlier, severe coagulopathy cases with prolonged bleeding time or prothrombin time exceeding 1.5 times the normal limit cannot be effectively managed with our treatments. These conditions can lead to sudden and potentially fatal complications, so I prefer not to take up such patients. However, subacute conditions can be effectively managed by following the recommended regimen.

Another crucial issue to consider is electrolyte imbalance. Many patients may experience hypokalemia, where potassium levels decrease during the course of treatment. If necessary, potassium supplementation may be prescribed. Occasionally, I might prescribe a potassium-sparing diuretic like Spironolactone, depending on the individual case, but it is not necessary for all patients. Monitoring for hypokalemia is essential, and supplementation should be provided if there is a tendency for low potassium levels during the treatment period.

**Management:**

- Rest
- Diet: -only cooked, fat free, carbohydrate rich

**Prescription:**

- Mrityunjaya Rasa
- Arogyavardhini Rasa

- Kumaryasava

**Investigations to be performed:**

- Liver function tests
- Prothrombin time
- HBsAg
- Ultrasonography

The other difference between hepatitis A and B is the duration of treatment. For hepatitis A, our treatment typically lasts three weeks, after which we can generally stop the treatment. However, for hepatitis B, the treatment period cannot be limited to three weeks; it often needs to extend to six months or even longer, until the patient becomes HBsAg-negative.

One group of patients that frequently comes to us includes those diagnosed as HBsAg carriers. The term "white jaundice" has become popular in society, though its origin is unclear. Some people associate "white jaundice" with anemia, while others link it to the diagnosis of HBsAg. These patients often require ongoing monitoring and treatment until they no longer test positive for HBsAg.

These patients often discover their positive status when applying for a visa or attempting to donate blood, prompting them to seek Ayurvedic treatment. Based on my clinical observation, patients who have had an episode of jaundice can test negative for HBsAg with our treatment if they adhere to it for three to six months, or sometimes even longer. The treatment regimen includes Mrityunjaya Rasa, Arogyavardhini Rasa, and Kumaryasava.

However, patients who have never experienced clinical jaundice but test positive for HBsAg often fail to achieve negativity, even though their globulin levels might slightly decrease. This distinction is crucial when counselling patients about possible outcomes. Managing these cases is challenging, and I do not have a scientific explanation for this observation; it is purely based on clinical experience: patients who have never had jaundice but test positive for HBsAg are difficult to treat in terms of achieving negativity. Although they may appear clinically normal, the risk of being a carrier persists.

## Hepatitis B carrier state

Patients in the carrier state are silent carriers of the virus and can potentially harm others more than they damage themselves. Therefore, it is crucial to screen the family members, as they too may be HBsAg positive without being aware. Screening the family is important because undetected carriers within the family can lead to widespread transmission.

The final outcome for these patients could include recurrent hepatitis, which may lead to fibrosis, cirrhosis-like changes, or even hepatocellular carcinoma. The exact duration for these complications to manifest is unpredictable and may take many years, such as 20-30 years, or even longer, before a carcinoma is diagnosed. These potential complications are a significant concern for the patient, emphasizing the importance of early detection and ongoing management.

Nevertheless, my observations indicate that if the patient adheres to the prescribed diet restrictions and takes these medicines, we can delay the onset of complications for a longer period. However, predicting whether the treatment has truly benefited the patient is difficult because the exact timeframe for the development of complications is unknown. As long as the patient is under our treatment and has not developed complications, we can tentatively conclude that our treatment has been preventive.

Despite the uncertainty of results, I continue to manage patients with the same line of treatment, which includes Mrityunjaya Rasa, Arogyavardhini Rasa, Kumaryasava, and diet restrictions. This approach appears to help in delaying potential complications, although definitive evidence of its long-term efficacy remains elusive.[1]

## Incidentally identified cases

This concerns patients who are incidentally identified as asymptomatic HBsAg positive, a group that is increasingly prevalent worldwide, not just in India. The

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[1] *Poortahmasebi, V., Salarian, A., Amiri, M., Poorebrahim, M., Jazayeri, S. M., Ataei, A., Asghari, M., & Alavian, S. M. (2017). Integrated Analysis of gene expression profiles reveals deregulation of the immune response genes during different phases of chronic hepatitis B infection. Hepatitis Monthly, 17(3). https://doi.org/10.5812/hepatmon.42237*

global incidence is approximately 400 million people, which accounts for nearly 5% of the global population. These individuals are at risk of becoming carriers, often without a clear source of infection, which could be due to hospital transmission or sexual behaviour. This issue has become a significant global problem with no definitive solution at present.

Previously, there was an energetic treatment involving neutralizing immunoglobulins, but it has proven unsuccessful and is no longer practiced. The global recommendation from the WHO focuses on diet, lifestyle modifications, and efforts to restrict the spread of the disease. This includes counselling patients and advising their family members on preventive measures such as physical separation, especially in terms of sexual activity, and the use of condoms. However, there is currently no specific curative management available.

If we can standardize our Ayurvedic treatment and demonstrate improved results, there is potential to establish it as an effective approach. However, we are not yet at that stage. For now, managing asymptomatic carriers through diet, lifestyle changes, and preventive measures remains the primary focus.

## Inactive HBsAg carriers

As I mentioned before, there are inactive HBsAg-positive cases that can vary in nature. Some patients may be HBeAg positive, while others may be HBeAg negative. The HBeAg positive cases carry a higher risk of developing complications. This assessment helps determine the patient's risk level. In contrast, HBeAg negative cases generally have a lower risk of complications.
When a patient tests positive for HBsAg, the next step is often to assess their HBeAg and HBe status. HBeAg positivity indicates a more active infection and a higher risk of complications. This information is valuable for predicting the likelihood of serious outcomes. The cost of conducting HBeAg and HBe tests is around 2000 rupees. If the patient can afford it, these tests can provide useful predictive information. However, beyond this risk assessment, there is not much additional benefit from further investigations.[1]

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[1] *de Franchis, R., Meucci, G., Vecchi, M., Tatarella, M., Colombo, M., Del Ninno, E., Rumi, M. G., Donato, M. F., & Ronchi, G. (1993). The natural history of asymptomatic hepatitis B*

## Management

As I mentioned earlier, the management remains consistent for many patients. However, I have observed that Virechana with Panchatikta Guggulu Ghrita has also been helpful in some cases. Yet, the results are not very predictable or dependable. If the patient is otherwise healthy, I often try treatments such as Panchatikta Guggulu Ghrita Snehana and Virechana. Approximately 30-40% of the patients have tested negative after this management.

Occasionally, if the patient presents with symptoms like Jwara (fever) or weight loss, I consider using Lakshminarayan Rasa instead of Mrityunjaya Rasa, considering the possibility of Dhatugata Jwara. Some patients may present with such symptoms, and this alternative line of treatment can continue for several years, sometimes up to three or four years. When a patient comes to me, I usually advise them to continue the treatment for three years. However, I also explain the possibility of no outcome at all.

I have patients who have been under follow-up for more than 20 years. If a patient has not developed hepatocellular carcinoma even after 20 years, I might attribute this to the treatment. However, I cannot say with certainty whether the treatment has truly produced this advantage. Thus, the effectiveness of the treatment remains an area of significant uncertainty.

**Management:**

- Screening of family members, counselling, diet and exercises,
- Virechana using Panchatikta Guggulu Ghrita for Snehana

**Prescription:**

- Arogyvardhini Rasa
- Laxminarayan Rasa
- Kumaryasava

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*surface antigen carriers. Annals of internal medicine, 118(3), 191–194. https://doi.org/10.7326/0003-4819-118-3-199302010-00006*

## Hepatitis C

Hepatitis C is not yet prevalent in usual clinical practice, but it is expected to become a significant concern in the coming years. Every practitioner needs to be aware of Hepatitis C, as screening for the Hepatitis C virus (HCV) will become universal. An important aspect of Hepatitis C is its transmission through blood and blood products. Initially, it was believed to be a complication exclusive to dialysis treatment. However, it is now known that transmission can occur through short-duration exposure to infected body fluids, not just dialysis.

The clinical presentation of Hepatitis C is often vague, with patients potentially remaining asymptomatic for extended periods. The incubation period is quite long, and unlike other types of viral hepatitis, the initial clinical presentation does not typically include fever or jaundice. Instead, the most common symptoms are arthralgias, characterized by vague joint pain and numbness. These symptoms are often categorized as neuritis-like conditions or pruritic skin manifestations, making the clinical presentation of Hepatitis C particularly misleading.[1]

**Initial extrahepatic symptoms**

- Arthralgias
- Myalgias
- Paraesthesia
- Pruritus

ततः शोणितजा रोगाः प्रजायन्ते पृथग्विधाः।
मुखपाकोऽक्षिरागश्च पूतिघ्राणास्यगन्धिता।।
गुल्मोपकुशवीसर्परक्तपित्तप्रमीलकाः।
विद्रधी रक्तमेहश्च प्रदरो वातशोणितम्।।
वैवर्ण्यमग्निसादश्च पिपासा गुरुगात्रता।
सन्तापश्चातिदौर्बल्यमरुचिः शिरसश्च रुक्।।
विदाहश्चान्नपानस्य तिक्ताम्लोद्गिरणं क्लमः।
क्रोधप्रचुरता बुद्धेः सम्मोहो लवणास्यता।। (Ch.Su. 24/11,12,13,14)

[1] *National Institutes of Health Consensus Development Conference Panel statement: management of hepatitis C. (1997). Hepatology (Baltimore, Md.), 26(3 Suppl 1), 2S–10S. https://doi.org/10.1002/hep.510260701*

**Secondary symptoms**

- Hand signs: Palmar erythema, Dupuytren contracture, asterixis, leukonychia, clubbing
- Head signs: Icteric sclera, temporal muscle wasting, enlarged parotid gland, cyanosis
- Fetor hepaticus
- Gynecomastia, small testes
- Abdominal signs: Paraumbilical hernia, ascites, caput medusae, hepatosplenomegaly, abdominal bruit
- Ankle edema
- Scant body hair
- Skin signs: Spider nevi, petechiae, excoriations due to pruritus

Acharya Sushruta categorized this as Shonitaja Vyadhi, where the symptoms can include Mukhapaka (mouth ulcers), Akshiraga (redness of the eyes), Putighrana (foul-smelling nose), and so on. These symptoms are quite vague, and patients often experience a general feeling of unwellness. The symptoms vary widely and can be difficult to manage and assess.

The current WHO guidelines recommend that every patient be screened for hepatitis C. However, such guidelines have not yet been implemented in our country. I anticipate that within the next one or two years, these guidelines will be developed at higher policy levels, increasing our awareness of hepatitis C. Another crucial aspect I follow in my clinical practice is when a patient presents with a clinical sign that does not clearly indicate either psoriasis or eczema.

## Dermatological manifestations of Hepatitis C:

Signs of hyperkeratosis, where the skin is thickened, and itching rashes can indicate the need for hepatitis C screening. In my clinical practice, I have observed that a significant number of patients with such skin manifestations test positive for hepatitis C. These patients often exhibit skin issues that are difficult to categorize as either eczema or psoriasis, particularly in areas with thickened keratin tissue, such as the plantar or palmar regions. While not every patient with these symptoms will test positive for hepatitis C, it is an important clue for identifying the condition. Currently, screening for hepatitis C based on these skin manifestations is not widespread. However, in the future, it may

become standard practice to screen every patient for the Hepatitis C virus. These skin manifestations are significant indicators of hepatitis.

**Management:**
My treatment would consist of:

- Kaishora Guggulu
- Arogyavardhini Rasa
- Manjisthadi Kashaya

Considering this as a variety of Vata-Pittaja Kustha, Virechana would be included in the treatment approach. Typically, Panchatikta Guggulu Ghrita is used for Snehana, which can provide symptomatic relief to patients. However, I am unable to screen the patient to determine whether the hepatitis C immunoglobulin has become negative afterward. Therefore, only a few patients may fall into the category of those treated for this condition. Nonetheless, this remains a critical issue in cases of hepatic pathology.

**Prescription:**

- Kaishora Guggulu
- Arogyavardhinni Rasa
- Manjisthadi kwatha
- Virechana

## Alcoholic Liver Disorder:

According to the WHO, alcoholism is highly prevalent and contributes to 3.8% of global mortality. This means that out of every 100 deaths, approximately 3.8 are attributed to alcohol-related issues, occurring almost daily. Liver disease alone accounts for 9.9% of deaths related to alcohol consumption. However, it is important to recognize that alcoholism can affect more than just the liver, impacting other organs as well. While I won't delve into those specifics here, understanding the liver pathology caused by alcoholism and its widespread impact is crucial.

The most effective way to prevent these health issues is to abstain from alcohol completely, although this can be challenging for individuals who are accustomed to drinking. It is worth noting that the onset of liver disease due to

alcoholism can be unpredictable; for many years, individuals may appear to be unaffected before symptoms manifest.[1]

You may not find anything abnormal initially. Other risk factors can increase the likelihood. During liver function tests, all other readings may appear normal except for slightly elevated transaminase levels. Instead of being 35 or 40 U/L, they may be 80 or 90 U/L, which is not extremely high but significant. Often, these elevations can be overlooked. Additionally, raised alkaline phosphatase levels indicate an initial risk increase. The remaining parameters are within normal limits, with only a slight rise in alkaline phosphatase. In such cases, we can manage patients who are at high risk of alcohol-induced liver pathologies. The next stage is fatty liver, which can be detected through ultrasound imaging. Fatty liver conditions are increasingly common, even among non-alcoholic individuals. The causes of fatty liver can vary, influenced by factors such as diet and lifestyle choices.[2]

Interestingly, a prominent hepatologist from Kerala has highlighted that Ayurvedic medicines can contribute to fatty liver. He presented a paper documenting cases where patients who had used Ayurvedic medications developed fatty liver. This suggests that nearly every patient with fatty liver pathology might have used Ayurvedic drugs at some point.

In another context, three months ago, India Today TV aired a segment discussing Ayurvedic treatment initiatives by the central government. During the program, a hepatologist from the All-India Institute of Medical Sciences cited four cases of acute hepatic failure linked to Ayurvedic medicines. This sparked considerable criticism of Ayurvedic medicine. I took the initiative to email him, informing him that I had treated 400 cases of hepatic failure due to modern medications. He graciously acknowledged my email and issued an apology. This

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*[1] https://www.worldgastroenterology.org/ publications/e-wgn/ e-wgn-expert-point-of-view-articles-collection/global-burden-of-liver-disease-a-true-burden-on-health-sciences-and-economies (accessed on 30/06/2023*

*[2] Lazo, M., & Mitchell, M. C. (2016). Epidemiology and risk factors for alcoholic liver disease. Alcoholic and Non-Alcoholic Fatty Liver Disease, 1–20. https://doi.org/10.1007/978-3-319-20538-0_1*

helped mitigate the situation. However, such instances of negative publicity can arise, and sometimes we must defend our practices.

We frequently encounter this risk. Often, patients may not have been aware of their fatty liver condition until they seek treatment for other reasons at different hospitals. When they mention having received Ayurvedic treatment, some may incorrectly attribute their fatty liver to Ayurvedic medicine. In such situations, it is essential to assertively clarify the facts.

Fatty liver disease is not always caused by alcohol. However, once a patient develops fatty liver due to alcohol consumption, it becomes crucial for them to abstain from alcohol. With proper management, patients with fatty liver can avoid significant complications and potentially halt the progression of the disease through our treatment methods. This represents a significant achievement.

However, once fatty liver progresses to fibrosis, avoiding alcohol does not significantly alter the long-term outcome. Whether the patient continues to consume alcohol or abstains, the impact on fibrosis progression is nearly the same. At this stage, the decision to continue or stop alcohol consumption often rests with the patient, as addiction can be a challenging factor.

When cirrhosis develops, it becomes an irreversible condition with no effective treatment available. The progression of cirrhosis varies widely among individuals, with some experiencing rapid progression while others progress slowly. Based on my clinical observations, individuals with Pitta Prakriti tend to be more sensitive to alcohol and may develop alcohol-related complications earlier compared to those with Kapha Prakriti, who generally tolerate alcohol better. However, this observation is based on personal experience rather than concrete statistical data.

In summary, while there are observations suggesting different responses to alcohol based on Ayurvedic constitutions, it is always advisable for all individuals to avoid alcohol consumption to prevent liver-related complications, regardless of their Prakriti type.

**Description of the Panatyaya and the complications of alcoholism:**

पानात्ययं परमदं पानाजीर्णमथापि वा। पानविभ्रममुग्रं च तेषां वक्ष्यमि लक्षणम्।।

ऊष्माणमङ्गगुरुतां विरसाननत्वं श्लेष्माधिकत्वमरुचिं मलमूत्रसङ्गम्।

लिङ्गं परस्य तु मदस्य वदन्ति तज्ज्ञास्तृष्णां रुजां शिरसि सन्धिषु चापि भेदम्।।

आध्मानमुद्गिरणमम्लरसो विदाहोऽजीर्णस्य पानजनितस्य वदन्ति लिङ्गम्।।

ज्ञेयानि तत्र भिषजा सुविनिश्चितानि। पित्तप्रकोपजनितानि च कारणानि।।

हृद्वात्रतोदवमथुज्वरकण्ठधूममूर्च्छाकफस्रवणमूर्धरुजो विदाहः।।२१।।

द्वेषः सुरान्नविकृतेषु च तेषु तेषु तं पानविभ्रममुशन्त्यखिलेन धीराः।
हीनोत्तरौष्ठमतिशीतममन्ददाहं तैलप्रभास्यमति(पि)पानहतं विजह्यात्।।

जिह्वौष्ठदन्तमसितं त्वथवाऽपि नीलं पीते
च यस्य नयने रुधिरप्रभे च।। (Su. Ut.47/19-23)

The text provides a comprehensive description of potential complications associated with Panatyaya, encompassing a spectrum from mild conditions like general heaviness (Anga Guruta) and body stiffness to more severe manifestations such as deep jaundice (Halimaka). In advanced stages, patients may also present with symptoms like oily appearance of urine (Tailaprabhasyama) and reddish eyes resembling the color of blood (Pitam nayana rudhira prabhe).

Acharya Sushruta's texts did not include ultrasound findings as they were not available during his time.

## Burden of disease in India:

The prevalence of alcohol consumption in India is notably high, and traditionally, it has been perceived as more prevalent among men. However, recent data indicates that alcoholism among women in India is recorded at 9%. It is essential to emphasize the term "recorded" because many cases likely go unreported. When a female patient presents with certain symptoms, alcoholism may not always be considered as a potential cause, but it is important to recognize that it can indeed occur in women. Nonetheless, the incidence of alcoholism remains higher among males compared to females.

**Alcohol consumption in India**

The trend of alcohol consumption in India has been rapidly increasing, as observed from data up to 2011. Subsequent data collection shows that this trend has continued to rise across the country, indicating a widespread increase rather than being limited to specific states or regions.[1]

The issue of alcoholism in India is indeed complex and multifaceted, with significant implications for public health and government revenues. Tamil Nadu, for instance, has emerged as a state generating substantial revenue from alcohol sales due to higher tax rates compared to Punjab, where lower taxes result in comparatively lower revenue despite higher alcohol consumption rates. Despite the substantial revenue generated, there is a noteworthy concern regarding the allocation of funds for the prevention and management of alcohol-induced diseases. The budget earmarked for programs addressing alcoholism has shown a decline over recent years, which contrasts sharply with the increasing prevalence of alcohol-related issues nationwide. This trend raises questions about the adequacy of resources allocated for combating alcoholism and providing support to affected individuals.

As taxpayers, regardless of personal alcohol consumption habits, there is a legitimate interest in understanding how public funds are utilized, particularly in addressing widespread social and health challenges like alcoholism. Advocating for better policies and increased funding for alcohol prevention and treatment programs could potentially lead to improved outcomes for affected individuals and communities.

In summary, while alcohol remains a significant revenue source for governments, the effective allocation of resources towards prevention and treatment programs is crucial for mitigating the adverse effects of alcoholism on public health and society as a whole.

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[1] *http://wake-up-humanity.blogspot.com/2014/05/a-treatise-on-alcohol-consumption-in.html,https://theindianblog.in/top-10-states-india/top-10-alcohol-consumption-states-in-india/(Accessed on 10/04/2024)*

## Management:

From a management standpoint, I do not advocate the use of medications to prevent alcoholism. Instead, I emphasize the crucial role of the patient's willpower in overcoming alcohol addiction. Disulfiram, a popular drug for deterring alcohol consumption, is associated with significant risks and side effects, making it a risky choice for treatment. While de-addiction camps are prevalent, I view them in a specific context concerning employment rather than as a comprehensive solution.

Counselling plays a beneficial role in supporting individuals dealing with alcohol addiction. However, I do not endorse any Ayurvedic medicines like Shrikhandasava or others for preventing alcoholism. My approach focuses on empowering individuals to rely on their willpower to overcome the addiction. Withdrawal from alcoholism can lead to various complications such as sleep disturbances, tremors, and anxiety, which I manage with medications like Smritisagara Rasa, Saraswatarishta, Taila dhara, or Matrabasti, depending on the symptoms.

It is important to clarify that my management approach does not aim to prevent alcoholism but rather to manage withdrawal symptoms effectively. For alcohol-induced health issues, I typically prescribe medications like Arogyavardhini Rasa or Kamadugha Rasa, tailored to the patient's specific presentation. Tremors, often indicative of Vata aggravation, and symptoms like dyspepsia and nausea, which suggest Pitta aggravation, are managed accordingly.

Alcohol withdrawal itself is generally not associated with significant risks compared to withdrawal from substances like opium derivatives. However, acute alcoholism can lead to hypoglycaemia in rare cases, particularly when individuals abruptly consume large amounts of alcohol after a period of abstinence. This scenario often occurs during festive seasons or after religious observances. Managing acute alcohol-induced hypoglycaemia involves promptly administering glucose, which can be life-saving.

In clinical practice, when a patient with altered consciousness is brought in, checking their blood sugar level is a crucial initial step. If hypoglycaemia is identified, immediate glucose administration can lead to rapid recovery, distinguishing it from other potential causes like stroke or cerebrovascular issues. Overall, while alcohol-related complications and acute hypoglycaemia incidents are increasing, particularly during specific periods, my approach

remains centred on supporting patients through symptomatic management and emphasizing the importance of willpower in addressing alcohol addiction.

**Management**

- Alcohol withdrawal
- Diet
- Exercise

**Symptomatic management of alcohol withdrawal symptoms**

- Smritisagar Rasa
- Saraswatarishta
- Taila dhara or Matrabasti

**For alcohol-induced pathology**

- Arogyavardhini Rasa
- Kamadugha Rasa

## Non-alcoholic fatty liver pathology:[1]

| **Nutritional** | **Drugs** |
|---|---|
| Starvation | Glucocorticoids |
| Obesity* | Tamoxifen |
| Bariatric surgery | Amiodarone |
| Parenteral nutrition | Valproic acid |
| Celiac disease | Zidovudine |
| **Metabolic** | Didanosine |
| Insulin resistance* | **Other** |
| Dyslipidaemia* | Inflammatory bowel disease |
| Fatty liver of pregnancy | Halogenated hydrocarbons |
| Toxic mushrooms | |

* Most common causes

The increasing incidence of complications related to the excessive use of medications among patients presents a significant challenge in clinical practice. Many patients rely extensively on multiple drugs, often resulting in

[1] *Tolman, K. G., & Dalpiaz, A. S. (2007). Treatment of non-alcoholic fatty liver disease. Therapeutics and clinical risk management, 3(6), 1153–1163*

complex prescription regimens. While individual drugs may not pose hepatotoxic risks, their combined use can lead to various unexplained conditions, including liver damage.

Symptoms in these cases can be nonspecific, ranging from weight loss to sudden weight gain, or patients may appear clinically healthy despite underlying issues such as fatty degeneration of the liver. Diagnosis is further complicated by normal results in biochemical tests in a substantial number of patients. Imaging modalities like ultrasound (USG) are crucial for identifying abnormalities that may not be palpable during physical examination.

Obesity emerges as a significant risk factor for fatty liver disease, alongside conditions like chronic colitis and intestinal disorders. Pregnancy, especially multiple pregnancies, also increases the likelihood of developing fatty liver disease. Notably, valproic acid, commonly used to treat seizure disorders, is known to induce fatty degeneration of the liver over prolonged usage. Therefore, careful monitoring of liver function and periodic dosage adjustments are essential in patients on valproic acid therapy to mitigate the risk of complications. Abrupt discontinuation of valproic acid can exacerbate seizures, necessitating a balanced approach to managing both the underlying condition and potential liver-related issues.

In my clinical practice, I adopt a regimen that includes Smritisagara Rasa, Arogyavardhini Rasa, and Saraswatarishta to support patients undergoing treatment with valproic acid. This approach aims to effectively manage symptoms and minimize the risk of complications associated with fatty degeneration of the liver. Addressing these challenges requires careful consideration of each patient's medical history, ongoing medications, and potential risks associated with drug therapy, emphasizing the need for personalized and vigilant management strategies.

## Cirrhosis:

Cirrhosis is indeed a significant and often irreversible complication of liver disease, characterized by necrosis, fibrosis, and regeneration of liver tissue. Traditionally, liver biopsy has been considered the gold standard for diagnosing cirrhosis, providing detailed histopathological information. However, in clinical practice, the necessity of biopsy is debated, particularly in cases where the diagnosis can be reasonably inferred through other means such as ultrasonography and clinical findings.

Ultrasonography plays a crucial role in identifying structural changes in the liver associated with cirrhosis, such as nodularity, irregularity of liver margins, and splenomegaly. These findings, combined with clinical indicators like reduced albumin levels, can strongly suggest the presence of cirrhosis. In such cases, relying on these non-invasive methods for diagnosis can often provide sufficient information without the need for biopsy.

Liver biopsy, while informative, carries inherent risks, particularly in patients with advanced cirrhosis where complications such as bleeding or infection are more likely. Therefore, the decision to perform a biopsy should be carefully weighed against the potential benefits and risks for each individual patient. If a patient's clinical presentation and imaging studies strongly suggest cirrhosis, I prioritize avoiding unnecessary invasive procedures, especially when the risk of complications outweighs the additional diagnostic benefit.

In my clinical practice, I advocate a pragmatic approach where diagnostic decisions are guided by the patient's overall condition, the reliability of non-invasive tests, and the potential risks associated with biopsy. This approach aims to balance the need for accurate diagnosis with patient safety and comfort, ensuring optimal management of cirrhosis and its complications.

## Radiological evidence of cirrhosis

The diagnostic evidence provided by ultrasonography is sufficient, particularly focusing on changes and the crucial determination of whether portal hypertension is evident or not. The assessment of blood flow within the portal circulation is pivotal.

## Causes of cirrhosis

The causes of cirrhosis are numerous and often difficult to pinpoint definitively. Viral hepatitis, especially types B and C, can gradually lead to cirrhosis, which is a major concern. Drug-induced liver damage and autoimmune disorders also play significant roles. Conditions like sclerosing cholangitis and rheumatism can rarely progress to cirrhosis, possibly exacerbated by treatments such as hydroxychloroquine commonly used for rheumatism. However, identifying the precise cause remains uncertain in many cases. The question arises whether prioritizing the identification of the cause is necessary or not. While efforts to

determine the cause can be extensive, effective management may still be lacking. Financial constraints also play a role; if a patient has limited resources, emphasizing the cause may not significantly alter the treatment or ultimate outcome. Therefore, I have managed numerous cirrhosis patients without definitively identifying the cause. While this approach may diverge from ethical guidelines, it has allowed me to achieve satisfactory outcomes for patients through effective management strategies.

## Child-Pugh scoring technique

The leading cause of cirrhosis is significant alcohol consumption, yet non-alcoholic cirrhosis is also prevalent. Therefore, when assessing patients' alcohol intake, clinicians should not automatically assume they are concealing an alcoholic habit. Grading cirrhosis is crucial in determining treatment strategies. For this purpose, I utilize the widely recognized Child-Pugh scoring system.

**Child-Pugh classification of severity of cirrhosis**[1]

| Parameter | Points assigned | | |
|---|---|---|---|
| | **1** | **2** | **3** |
| Ascites | Absent | Slight | Moderate |
| Bilirubin | <2 mg/dL (<34.2 micromol/L) | 2 to 3 mg/dL (34.2 to 51.3 micromol/L) | >3 mg/dL (>51.3 micromol/L) |
| Albumin | >3.5 g/dL (35 g/L) | 2.8 to 3.5 g/dL (28 to 35 g/L) | <2.8 g/dL (<28 g/L) |
| Prothrombin time (seconds over control) or | <4 | 4 to 6 | >6 |
| INR | <1.7 | 1.7 to 2.3 | >2.3 |
| Encephalopathy | None | Grade 1 to 2 | Grade 3 to 4 |

*1 https://www.uptodate.com/contents/image?imageKey=GAST/78401*

A total Child-Pugh score of 5 to 6 is considered Child-Pugh class A (well-compensated disease), 7 to 9 is class B (significant functional compromise), and 10 to 15 is class C (decompensated disease). These classes correlate with one- and two-year patient survival: class A: 100 and 85%; class B: 80 and 60%; and class C: 45 and 35%.

The Child-Pugh scoring system is a straightforward method for evaluating clinical factors. For instance, absence of encephalopathy scores one point, whereas severe encephalopathy scores three points, escalating the grade accordingly. Ascites presence also contributes to the scoring. If a cirrhosis patient develops hyperbilirubinemia with total bilirubin levels exceeding three to four, it indicates a high-risk scenario. Furthermore, both urine bilirubin and total bilirubin levels are significant indicators in this assessment.

However, one critical indicator is the level of albumin. A lower albumin level indicates greater severity. Grade three conditions have a very poor outcome with our management, often resulting in fatal complications. On the other hand, grade one conditions are more easily managed. Therefore, I always prefer to treat patients in grade one. While I don't refuse treatment for grade three patients, the prognosis can be predicted to be poor, with hepatic transplantation being the only possible curative option.

**Description of cirrhosis in our texts**

कोष्ठादुपस्नेहवदन्नसारो निःसृत्य दुष्टोऽनिलवेगनुन्नः।।
त्वचः समुन्नम्य शनैः समन्ताद्विवर्धमानो जठरं करोति।। (Su. Ni 7/6)

यच्चोषतृष्णाज्वरदाहयुक्तं पीतं सिरा भान्ति च यत्र पीताः।।
पीताक्षिविण्मूत्रनखाननस्य पित्तोदरं तत्त्वचिराभिवृद्धि।।
दकोदरं कीर्तयतो निबोध। (Su. Ni 7/9)

यः स्नेहपीतोऽप्यनुवासितो वा वान्तो विरिक्तोऽप्यथवा निरूढः।।

पिबेज्जलं शीतलमाशु तस्य स्रोतांसि दुष्यन्ति हि तद्वहानि।
स्नेहोपलिप्तेष्वथवाऽपि तेषु दकोदरं पूर्ववदभ्युपैति।।

स्निग्धं महत् सम्परिवृत्तनाभि भृशोन्नतं पूर्णमिवाम्बुना च।
यथा दृतिः क्षुभ्यति कम्पते च शब्दायते चापि दकोदरं तत्।। (Su. Ni. 7/21,22,23)

Although cirrhosis is not explicitly described in our text, its complications such as ascites are discussed in the context of Jalodara. Jalodara manifests as the accumulation of fluid in the abdomen due to portal hypertension, leading to

significant complications. According to the verse from Sushruta Samhita Nidana Sthana 7/6, 'Koṣṭhādupasnehavadannasāro niḥsṛtya duṣṭo anilaveganunnah', it indicates the formation of abdominal fluid and subsequent complications. Additionally, cirrhosis can also present with clinical features resembling Pittodara, where jaundice is prominent. Therefore, cirrhosis may manifest either with ascites alone (Jalodara) or with ascites accompanied by jaundice (Pittodara). Both Jalodara and Pittodara are considered Asadhya (difficult to treat) conditions in Sushruta's teachings, suggesting poor prognosis in such cases.

## Risk assessment and management

The most crucial aspect in managing cirrhosis is determining the presence of oesophageal varices. Patients with oesophageal varices and cirrhosis are at high risk due to the unpredictable nature of variceal bleeding, which can be sudden and life-threatening. This constitutes a medical emergency. For patients presenting with varices, I recommend interventional treatments such as clipping or sclerotherapy. Although I possess an endoscope, I refrain from performing variceal clipping myself because it is a high-risk procedure. Misplacing a clip even slightly can result in immediate bleeding during the procedure, underscoring the potential danger involved.

When managing a patient with cirrhosis and oesophageal varices, I begin with an esophagoscopy. If varices are detected, I stop the procedure at that point and do not proceed further. I then refer the patient to another hospital for interventional treatment, such as clipping. Once the clipping has been successfully performed to prevent variceal bleeding, I commence treatment aimed at preventing the recurrence of varices. My preferred regimen includes Arogyavardhini Rasa, Kamadugha Rasa, and Usheerasava. This approach is similar to managing a variant of Raktapitta and is not a direct treatment for esophageal varices but serves as a preventive measure.

For patients with ascites, which is fluid accumulation in the abdomen, the primary treatment includes Arogyavardhini Rasa and Kumaryasava. Following the principles of Jalodara Chikitsa, I also add Punarnava Mandoora and Punarnavasava to the treatment plan. This combination helps manage the condition effectively and aims to prevent recurrence, even though varices have a tendency to recur frequently after interventional treatment.

One of the significant advantages of my treatment approach is the use of fresh Gomutra combined with Triphala Choorna. I prescribe freshly collected Gomutra daily with Triphala Choorna, as I have found this combination to be highly beneficial. In contrast, Gomutra Arka available in the market tends to cause more irritation and does not yield the same results. My observations have consistently shown better outcomes with fresh Gomutra. I normally prescribe Gomutra in a dose of 40 ml in the morning once a day and Triphala Churna 10 g twice daily after food.

A crucial aspect of this treatment is the initial monitoring phase. I keep the patient hospitalized for the first week of Gomutra administration. This is because I have observed a significant number of patients who develop widespread peritonitis within the first week of starting Gomutra. If the patient tolerates Gomutra for this initial period without developing peritonitis, the likelihood of such complications decreases significantly. This one-week observation period acts as a critical test to gauge the patient's tolerance and predict potential outcomes. If peritonitis does develop, it indicates a very poor prognosis with serious complications.

Therefore, I have established a protocol where I never advise patients to start Gomutra therapy at home. They must be hospitalized initially to monitor their response closely. Only after ensuring that the patient has not developed peritonitis do I discharge them and allow the continuation of Gomutra therapy at home. Even then, I rarely recommend home use due to the potential risks involved.

While Gomutra may not be universally safe, once a patient has adapted to it, the results can be remarkably positive. I have numerous cases where patients with significant ascites have experienced dramatic improvements, including complete resolution of ascites, leading to noticeable physical changes such as needing new clothes due to reduced abdominal girth. However, the main challenge remains the predictability of outcomes, making careful initial monitoring essential.

**Key points**

**Oesophageal varices and bleeding**

Acute emergency, interventional treatment necessary

**Prevention of recurrence**

- Arogyavardhini Rasa
- Kamadugha Rasa
- Usheerasava

**Symptomatic management of fluid accumulation**

- Punarnava Mandoora
- Punarnavasav
- Gomutra with Triphala Choorna (Risk of peritonitis)

## The description of Gomutra in Ayurveda Samhita:

गोमूत्रं कटु तीक्ष्णोष्णं सक्षारत्वान्न वातलम् ।
लघ्वग्निदीपनं मेध्यं पित्तलं कफवातनुत् ।।

शूलगुल्मोदरानाहविरेकास्थापनादिषु ।
मूत्रप्रयोगसाध्येषु गव्यं मूत्रं प्रयोजयेत् ।। (Su. Su. 47/220,221)

जयेदरिष्टगोमूत्रचूर्णायस्कृतिपानतः ।
सक्षारतैलपानैश्च दुर्बलस्य कफोदरम् ।। (A.H.Chi.15)

सोपस्तम्भोऽपि वा वायुराध्मापयति यं नरम् ।
तीक्ष्णैः सक्षारगोमूत्रैर्बस्तिभिस्तमुपाचरेत् । (Ch. Chi. 13)

Gomutra Basti is recommended for patients experiencing obstruction symptoms, as mentioned in Samhita. However, in my practice, I do not prescribe Basti in such cases. Instead, I advise the patient to consume fresh Gomutra daily.

# Liver Transplantation in India

The last part is about liver diseases and liver transplantation. Though it is not our primary focus, it is worth mentioning. Initially, liver transplantation was

considered a myth and was not practically feasible. However, it is now becoming more popular, and the incidence of liver transplantation is increasing in India.[1]

## Survival after liver transplantation

The outcome of liver transplantation has also improved significantly. The survival rate after liver transplantation in India is increasing, making it a more viable option for patients with severe liver diseases.

When patients ask me about liver transplantation, my perspective has changed over the years. Fifteen or twenty years ago, I might have dismissed the idea due to its impracticality and low success rates. Today, however, I acknowledge that it can be a beneficial treatment option, provided the patient has the financial means to afford it. Liver transplantation remains a costly procedure, but the results have notably improved.

As responsible physicians, it is our duty to guide patients towards the best possible treatment options. If liver transplantation is a feasible option and the patient can afford it, I recommend considering it. Many patients who have undergone liver transplantation now enjoy better health and quality of life. Affordability is the main concern, but if a patient can manage the costs, liver transplantation is a promising avenue for treatment.[2]

# Liver abscess:

सर्वाङ्गप्रग्रहस्तीव्रो हृदि शूलश्च दारुणः ।
श्वासो यकृति तृष्णा च पिपासाक्लोमजेऽधिका ।।

नाभेरुपरिजाः पक्त्वा यान्त्यूर्ध्वमितरे त्वधः ।
जीवत्यधो निःस्रुतेषु स्रुतेषूर्ध्वं न जीवति ।।

हृन्नाभिबस्तिवर्ज्या ये तेषु भिन्नेषु बाह्यतः ।
जीवेत् कदाचित् पुरुषो नेतरेषु कदाचन ।। (Su. Ni.9/22,23,24,25)

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[1] *https://www.mamcjms.in/viewimage.asp?img=MAMCJMedSci_2016_2_1_6_174841_f1.jpg)*

[2] *Thiagarajan, S., & Soin, A. (2016). Liver transplant scene in India. MAMC Journal of Medical Sciences, 2(1), 6. https://doi.org/10.4103/2394-7438.174841*

Acharya Sushruta has described liver abscess very clearly as Antarvidradhi. In cases of Yakritjanya or Vidraddhi occurring in the liver, Acharya Sushruta mentions "Shwaso yakriti trishna cha pipasa klomaje adhika," indicating clinical features that include Shwasa due to diaphragmatic strain. A liver abscess affects the movement of the diaphragm, consistent with Acharya Sushruta's description.

The outcomes of a liver abscess are also clearly described by Acharya Sushruta. If the abscess bursts open superiorly, "Nābheruparijāḥ pakvā yāntyūrdhvamitarē tvadhaḥ । Jīvati adhoḥ niḥsrutēṣu srutēṣūrdhvaṃ na jīvati," it means that if it bursts into the pleural cavity, the patient would not survive. However, if the abscess bursts into the peritoneum, the patient may survive, although better outcomes are rare. If the abscess bursts externally and drains naturally, " Bhinneṣu bāhyataḥ Jīvet kadācit," the patient may survive. This description of the prognosis of a liver abscess is very detailed and accurate.

When a patient presents with a liver abscess, the clinical signs and assessment are crucial. The history typically includes pain, fever, and possibly dyspnoea. Respiratory excursion will be reduced, and there will be tenderness in the right hypochondrium. Jaundice is not typically a clinical sign.

Investigations will show that transaminase levels are moderately elevated, around 300-400 IU/L, not in the thousands as seen in hepatitis. The key issue is distinguishing between a pyogenic liver abscess and an amoebic liver abscess. In coastal areas, amoebic liver abscess is more common. In contrast, in interior areas like Madhya Pradesh and Andhra Pradesh, pyogenic abscesses are more prevalent. Amoebic abscesses usually present as a single lesion on ultrasonography, while pyogenic liver abscesses typically show multiple lesions. [1]

*1https://jpabs.org/misc/will-an-abscess-go-away-on-its-own-with-antibiotics.html) (Accessed on 10/04/2024)*

## The USG finding of Amoebic and Pyogenic abscesses:

On ultrasound, a distinctive characteristic of amoebic liver abscesses is the presence of a single lesion. In contrast, pyogenic liver abscesses typically display multiple lesions. [1] [2]

## Management of Liver Abscess:

I acknowledge that Ayurvedic treatment alone may not suffice for managing patients due to the rapid progression and severity of their condition. Typically, patients exhibit a total leukocyte count above 17,000/µL, where I consider Ayurvedic intervention alone may not be sufficient. Therefore, in such cases where patients opt for Ayurvedic treatment, additional interventions like aspiration may be necessary based on clinical assessment. However, preventing recurrence is achievable, especially given the high rate of recurrence in amoebic liver abscesses. Immediate management requires a combined approach. After administering treatments such as Triphala Guggulu, Gandhaka Rasayana, and Jeerakadyarishta for conditions like Antarvidraddhi or the Gulma variant, recurrence prevention can be effectively assured.

**Key points:**

- Antibiotics/Anti amoebic are necessary
- Aspiration/Exploration as per the condition

**Prevention of recurrence-**

- Triphala Guggulu
- Gandhaka Rasayana
- Jeerakadyrishta

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*1 https://radiopaedia.org/articles/amoebic-hepatic-abscess(Accessed on 10/04/2024)*

*2 https://drrajeshupadhyay.in/product.php?id=4690 (Accessed on 10/04/2024)*

# Cholecystitis:

तृष्णा दाहो मदो मूर्च्छा तीव्रं शूलं तथैव च ।
शीताभिकामो भवति शीतेनैव प्रशाम्यति ।।
एतैर्लिङ्गैर्विजानीयाच्छूलं पित्तसमुद्भवम् । (Su.Ut 42/84,85)

Cholecystitis, described by Acharya Sushruta as Pittaja Shoola, encompasses all clinical features associated with the condition. Today, cholecystitis has become a primary focus for surgeons.

## Cholecystitis -Acalculous

There is a common misconception that every patient with cholecystitis requires surgery, but this is not necessarily true. In cases of acalculous cholecystitis (without stones), I have my own criteria based on guidelines that define the thickness of the gallbladder wall. If the gallbladder wall thickness does not exceed 5 mm, surgery is not typically necessary for acalculous cholecystitis. However, in calculous cholecystitis (accompanied by gallstones), surgery is often the preferred option due to the high risk of complications such as pyemia or mucocele.

**My recommendation for a patient with cholecystitis is as follows:**
If the patient presents with both a stone and cholecystitis, I would advise surgery. However, if the patient has developed cholecystitis without a stone, I would continue with medical management. Additionally, surgery would only be recommended if the gallbladder wall thickness exceeds 8 mm; otherwise, surgery is not required.

In patients with biliary sludge, cholecystitis may occur, and some respond to medical treatment initially but later develop biliary sludge. Ultrasonography shows signs of bile stagnation in these cases, where outcomes can vary. If patients do not respond to initial treatment, surgery may be necessary, especially if complications like mucocele or a distended gallbladder with dissected walls develop. These conditions require surgical intervention without consideration for medical management. The decision to manage medically depends on these grey areas. For medically managed conditions, I prescribe Agnitundi Vati, Arogyavardhini Rasa, and Kumaryasava. Antibiotics are used based on leukocyte count levels; if not elevated, antibiotics are unnecessary alongside Agnitundi Vati, Arogyavardhini Rasa, and Jeerakadyarishta. For Pittaja

Shoola, this treatment is sufficient. If leukocyte counts are high with toxic signs, antibiotics that excrete into bile are selected deliberately, not randomly. Although specific antibiotics aren't suggested here, they might be necessary. Gallbladder ischemia and perforation are rare but are serious complications necessitating immediate surgical intervention during treatment. Vigilance is crucial as these complications can lead to sudden severe toxaemia within the first two weeks.

**Management**

Antibiotics are needed if total count is above 17000/µL, intravenous fluids may be needed. Gall bladder ischemia, perforation and bile stasis are indications for surgery.

- Agnitundi Vati
- Arogyavardhini Rasa
- Jeerakadyarishta

## Gall stones

कर्शनात्कफविद्वित्तैर्मार्गस्यावरणेन वा।
वायुः कृताश्रयः कोष्ठे रौक्ष्यात्काठिन्यमागतः।।

स्वतन्त्रः स्वाश्रये दुष्टः परतन्त्रः पराश्रये।
पिण्डितत्वादमूर्तोऽपि मूर्तत्वमिव संश्रितः।।

गुल्म इत्युच्यते बस्तिनाभिहृत्पार्श्वसंश्रयः। (A.H.Ni. 11/39,40)

Gallstones are typically classified as Pittaja Ashmari. However, I do not categorize them as Ashmari because Acharya Charaka and Acharya Sushruta have specifically described Ashmari in the context of urinary tract stones only. The clinical symptoms of gallstones align more with Pittaja Gulma. Pittaja Gulma itself is a subject of academic debate, and I personally consider patients with gallstones to fall under this category.

**Management**

The management approach for gallstones depends on specific indications. Surgery is recommended when cholecystitis is accompanied by gallstones. Asymptomatic gallstones do not necessitate immediate surgery. The incidence of gallstones has been increasing in recent years; previously lower in our region, it now mirrors rates in Northern India. This trend might be attributed to changes in dietary habits, with increased consumption of foods like Chapati.

Once a patient develops gallstones, my criteria for surgical intervention include cholecystitis with multiple small stones, which pose a risk of migrating into the common bile duct and causing obstructive jaundice. In such cases, surgery is prudent to prevent complications. Thickening of the gallbladder wall and presence of stones in the common bile duct are clear indications for surgical intervention due to the immediate risk of obstructive jaundice.

For asymptomatic patients with a single large stone, typically cholesterol stones, medical management is preferred. Cholesterol stones can often be effectively managed without surgery, aligning with both Ayurvedic principles and contemporary medical guidelines. I consider a gallbladder wall thickness of 8 mm as a criterion for surgical intervention, whereas the universal guideline suggests 5 mm.

The management of a nonfunctioning gallbladder is a contentious issue. According to contemporary medical views, a nonfunctioning gallbladder with stones carries a heightened risk of malignancy. On average, malignancy may develop 20 years after initial diagnosis, often affecting patients around the ages of 50 or 60. When discussing treatment options, I ask patients 'how long they aim to live'. For younger patients, those additional 20 years are significant, whereas older patients may prioritize living comfortably without immediate disease concerns. My treatment regimen typically includes Arogyavardhini Rasa, Chandraprabha Vati, and Kumaryasava. Clinically, I classify this condition as either Pittaja Gulma or Pittaja Shoola, with Pittaja Gulma being the preferred diagnosis.

**Key points**

**Surgical indications in Cholecystitis**

- Multiple small stones
- Thickened gall bladder
- Stones in CBD

**Medical possibilities**

- Asymptomatic single large stone
- Gall bladder wall is not thickened [less than 8mm]
- Non- functioning gall bladder

**My prescription would include following drugs**

- Arogyavardhini Rasa
- Chandraprabha vati
- Kumaryasava

**Post cholecystectomy syndrome**
1% of patients - Persistent symptoms
45% develop long term complications

- Dyspepsia
- Fat intolerance
- Chest pain

USG evaluation to rule out surgical complications

## Post-cholecystectomy syndrome

After cholecystectomy, almost all patients eventually develop one or more complications, for which there is often no satisfactory solution in contemporary medical practice. Consequently, many patients eventually turn to Ayurvedic practitioners. Clinical symptoms post-surgery occur at a high incidence, with fat intolerance being the most common issue. While universal statistics suggest that 45% experience long-term complications, in my experience, this figure may be even higher.

The predominant symptom among these patients is an inability to tolerate fatty foods, even those with slight oily content, with limited curative options available in modern medicine. In Ayurveda, I recommend treatments such as Agnitundi Vati, Arogyavardhini Rasa with Godanti Bhasma, and either Avipattikara Choorna or Jeerakadyarishta. If constipation is present, I prefer Avipattikara Choorna; for those with relatively frequent stools, Jeerakadyarishta is preferable. Effective management focusing on Vataja and Pittaja Shoola yields satisfactory outcomes.

Post-cholecystectomy syndrome is an area where Ayurvedic treatment excels compared to conventional methods, given its higher success rate and the increasing number of affected patients. Even after surgical referral, there remains a likelihood that patients may seek Ayurvedic care at a later stage

**Key points**

- USG evaluation to rule out surgical complications

**Medical management**

- Agnitundi Vati
- Arogyavardhini Rasa
- Godanti Bhasma+Avipattikara Choorna/Jeerakadyarishta

## Biliary dyskinesia:

**Use of Udavarthahara Basti**

> जलद्विकंसेऽष्टपलं पलाशात् पक्त्वा रसोऽर्धाढकमात्रशेषः।
> कल्कैर्वचामागधिकापलाभ्यां युक्तः शताह्वाद्विपलेन चापि।।
>
> ससैन्धवः क्षौद्रयुतः सतैलो देयो निरूहो बलवर्णकारी।
> आनाहपार्श्वामययोनिदोषान् गुल्मानुदावर्तरुजं च हन्यात्।। (Ch. Si. 3/44,45)

In 2002, I encountered a memorable case that highlighted the unexpected challenges in diagnosing and treating obstructive jaundice. Initially diagnosed with a common bile duct stone at KMC Manipal, the patient sought an alternative opinion after being unable to afford surgery. A subsequent MRI scan from another hospital suggested a growth in the biliary tract, raising concerns about malignancy.

Upon review of the images, I suspected it might not be a growth but rather a soft stone. Proceeding with caution, I opted for cholecystostomy. During the procedure, to my surprise, I discovered a live roundworm inside the common bile duct. Remarkably, the roundworm remained alive for about 15 minutes after removal, confirming a non-malignant condition and indicating a favorable prognosis.

Following standard procedure, a T-tube was inserted, and the patient recovered well postoperatively. However, complications arose when attempts were made to close the T-tube on the 5th or 6th day. The patient experienced bile leakage and severe pain, suggesting biliary dyskinesia. Despite efforts to manage the condition, including adjusting bile flow pressure and exploring various treatments, the patient's symptoms persisted over 140 days.

Ultimately, dilation of the sphincter through an endoscopic procedure was recommended, although the patient was reluctant to pursue further treatment at another hospital. This prolonged and challenging case left a lasting impact, underscoring the intricacies of biliary tract disorders and the persistence required in medical care.

One night, while reading Charak Samhita, Siddhi Sthana chapter 8, I came across Udavartahara Basti. Intrigued by its potential, I discussed it with the Panchakarma department and we decided to administer a simple Udavartahara Basti to a patient the very next morning. This patient had been struggling with biliary dyskinesia, marked by persistently high pressures in the common bile duct despite medical interventions.

To our surprise, within three days of administering Udavartahara Basti, the pressure in the common bile duct decreased from 40 centimeters of water to a normal 14 centimeters of water. By the fourth day, we were able to remove the T-tube, and the patient's condition rapidly normalized. This experience underscored the effectiveness of Udavartahara Basti in managing biliary dyskinesia, a condition that is not commonly encountered. This case demonstrated the potential of Udavartahara Basti in addressing specific gastrointestinal dyskinesias.

Moreover, I have also observed significant improvements using Udavartahara Basti in patients with ureteric dyskinesia, another condition where abnormal peristalsis can lead to functional issues. While dyskinesia remains rare, these experiences highlight the promising role of Ayurvedic treatments like Udavartahara Basti in managing complex gastrointestinal and urinary disorders

## Obstructive jaundice:

- Multiple causes
- Jaundice with raised direct bilirubin
- Dilatation of Biliary pathways
- Clay coloured stools

It is clear that obstructive jaundice necessitates surgical intervention and cannot be effectively managed through Ayurveda or other medical interventions alone. Identifying patients with obstructive jaundice is crucial, and diagnostic

steps like elevated direct bilirubin levels, clay-colored stools, and ultrasound confirmation are essential.

In Ayurvedic terms, Acharya Sushruta described a condition akin to obstructive jaundice as "Paanaki" associated with "Pandu roga" (jaundice). This condition, along with complications like "Kumbha kamala," underscores the severity and traditional understanding of obstructive jaundice. Therefore, recognizing the need for surgical intervention is paramount in managing these patients effectively.

**Key points**

Interventional treatment is necessary.

स कामलापानकिपाण्डुरोगः कुम्भाह्वयो लाघर(व)कोऽलसाख्यः ।
विभाष्यते लक्षणमस्य कृत्स्नं निबोध वक्ष्याम्यनुपूर्वशस्तत् ।।६।।

... वक्ष्यामि लिङ्गान्यथ कामलायाः ।
यो ह्यामयान्ते सहसाऽन्नमम्लमद्यादपथ्यानि च तस्य पित्तम् ।।

करोति पाण्डुं वदनं विशेषात् पूर्वेरितौ तन्द्रिबलक्षयौ च ।
भेदस्तु तस्याः खलु कुम्भसाह्वः शोफो महांस्तत्र च पर्वभेदः ।।

ज्वराङ्गमर्दभ्रमसादतन्द्राक्षयान्वितो लाघर(व)कोऽलसाख्यः ।
तं वातपित्ताद्धरिपीतनीलं हलीमकं नाम वदन्ति तज्ज्ञाः ।। (Su. Ut. 44/10.11,12)

Acharya Sushruta also has considered this as absolutely Asadhya or incurable condition.

# Anemia:

**Causes**

- Gastritis
- Gastric or duodenal ulcer
- Liver or renal disease
- Hypothyroidism
- Sickle cell disease
- Hypermenorrhoea
- Thrombocytopenia or blood coagulation disorders
- Cancer or other chronic conditions
- Poor diet, especially iron deficiency

**Types of anemia based on clinical picture-**

- Iron deficiency anemia
- Megaloblastic anemia
- Pernicious anemia
- Haemorrhagic anemia

- Haemolytic anemia- Thalassemia, Sickle cell anemia
- Aplastic anemia

Anemia is a complex condition with diverse underlying causes, necessitating a tailored approach to treatment rather than a one-size-fits-all solution like iron tonics or Punarava Mandoora and Draksharishta. It is crucial to conduct thorough assessments because about 80% of anemic patients have identifiable causes such as gastric issues, liver problems, thyroid disorders, or menstrual irregularities. Treatment should address these specific causes to be effective. Hence, while iron deficiency anemia has a standard treatment protocol, other types of anemia require individualized management based on their root causes.

## Haemorrhagic Anemia:

अत्युष्णेऽतिस्विन्नेऽतिविद्धेऽज्ञैर्विस्रावितमतिप्रवर्तत[तदतिप्रवृत्तं ।
शिरोऽभितापमान्ध्यमधिमन्थतिमिरप्रादुर्भावं धातुक्षयमाक्षेपकं दाहं ।
पक्षाघातमेकाङ्गविकारं हिक्कां श्वासकासौ पाण्डुरोगं मरणं चापादयति ।।
(Su.Su. 14/30)

**Haemorrhoids:**

तेषां तु भविष्यतां पूर्वरूपाणि- अन्नेऽश्रद्धा कृच्छ्रात् पक्तिरम्लीका परिदाहो विष्टम्भः
पिपासा सक्थिसदनमाटोपः कार्श्यमुद्गारबाहुल्यमक्ष्णोः श्वयथुरन्त्रकूजनं
गुदपरिकर्तनमाशङ्का पाण्डुरोगग्रहणीदोषशोषाणां [१] कासश्वासौ बलहानिर्भ्रमस्तन्द्रा
निद्रेन्द्रियदौर्बल्यं च ।। (Su.Ni. 2/8)

**Renal Causes:**

हृत्पीडा सक्थिसदनं कुक्षिशूलं च वेपथुः ।
तृष्णोर्ध्वगोऽनिलः काष्र्यं दौर्बल्यं पाण्डुगात्रता ।।
अरोचकाविपाकौ तु शर्करार्ते भवन्ति च । (Su. Ni. 3/15,16)

**GIT Pathology:**

तच्छीतवाताभ्रसमुद्भवेषु विशेषतः कुप्यति दह्यते च स चातुरो मूर्च्छति सम्प्रसक्तं पाण्डुः
कृशः शुष्यति तृष्णया च ।
प्रकीर्तितं  दूष्युदरं तु घोरं ... । (Su. Ni. 7/13,14)

**Malignancy:**

दोषः प्रदुष्टो रुधिरं सिरास्तु सम्पीड्य सङ्कोच्य गतस्त्वपाकम्।।
सास्रावमुन्नह्यति मांसपिण्डं मांसाङ्कुरैराचितमाशुवृद्धिम्।
स्रवत्यजस्रं रुधिरं प्रदुष्टमसाध्यमेतद्रुधिरात्मकं स्यात्।।
रक्तक्षयोपद्रवपीडितत्वात् पाण्डुर्भवेत् सोऽर्बुदपीडितस्तु। (Su. Ni. 11/15,16,17)

Absolutely, the causes of anemia mentioned in Ayurvedic texts encompass a wide range of conditions. Pandu, which is the Ayurvedic term for anemia, can arise due to various factors such as hemorrhoids, disorders of the gastrointestinal tract, renal pathology, and even malignancy. Each of these underlying causes requires specific treatment tailored to address the root issue. It is essential to conduct a thorough assessment to determine the cause of anemia accurately before initiating treatment. This approach ensures that the treatment aligns with the specific condition causing the anemia, rather than applying a uniform treatment regimen for all cases of Pandu.

## Deficiency Anemia- Pandu Roga:

व्यवायमम्लं लवणानि मद्यं मृदं दिवास्वप्नमतीव तीक्ष्णम्।
निषेवमाणस्य विदूष्य रक्तं कुर्वन्ति दोषास्त्वचि पाण्डुभावम्।। (Su. Ut. 44/3)

In our discussion, we focus on iron deficiency anemia, which is a significant national health concern. A critical issue is identifying when a patient truly exhibits anemia. The conventional hemoglobin level standard is set at 14 g/dL. However, when screening rural populations, most individuals typically present hemoglobin levels ranging between 11 and 12 g/dL. Achieving 14 g/dL hemoglobin is rare in rural areas. Many believe they have iron deficiency anemia, prompting widespread distribution of iron supplements under our national health program. The reality differs. In regions with abundant oxygen in the air, lower hemoglobin levels are sufficient. The 14 g/dL standard derives from Western norms influenced by lower oxygen availability in colder climates. In areas with better air quality, hemoglobin levels need not be as high; they can be lower.

The issue lies with the Indian Council of Medical Research (ICMR), which has yet to establish standards tailored to Indian conditions. This concern extends beyond anemia to biochemical values, which can vary based on environmental and lifestyle factors. Despite these differences, we continue to adhere to Western standards. This discrepancy partly explains why rural individuals may

have lower hemoglobin levels compared to urban areas like Delhi, where levels tend to be higher. However, higher hemoglobin in Delhi doesn't necessarily indicate better health; rather, it reflects the need for increased hemoglobin due to lower oxygen availability in urban environments.

This perception of anemia needs revision. I assert that this viewpoint is not widely accepted in the medical community. There is a compelling need to reassess this situation. The World Health Organization (WHO) acknowledges these factors by setting a normal range for anemia from 9 to 11 g/dL. In contrast, the ICMR maintains a higher threshold. This discrepancy is crucial and is underappreciated in society.[1]

Therefore, we should not automatically classify individuals with lower hemoglobin levels as anaemic. Instead, we should understand their specific levels and contextualize them accordingly. Adjusting our assessment criteria can effectively manage anemia within these specific contexts. It is not a one-size-fits-all approach. Consequently, I propose considering less than 9 g/dL as the criterion for anemia. Only individuals below this threshold should be classified as anemic. For instance, a patient with hypothyroidism presenting with 9 g/dL hemoglobin need not be labelled as anemia if there are no other clinical indicators.

This perspective is crucial in minimizing unnecessary medication prescriptions for a large number of patients. Addressing these nuances is paramount for improved healthcare outcomes and better patient management.

## Global data about the incidence of anemia

Based on global epidemiological data, India stands out significantly regarding the prevalence of anemia compared to other countries. Statistics sourced from reputable sources such as the World Health Organization (WHO) clearly indicate that nearly every individual in India falls within the anemic category. This categorization is primarily influenced by factors related to environmental oxygen availability, which underscores a crucial point.[2]

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[1] *https://www.slideshare.net/ajaydhawle/se-anemia-in-india*

[2] *https://www.globaldata.com/media/press-release/india-highest-prevalence-anemia-among-16-major-pharma-markets-finds-globaldata/(Accessed on 10/04/2024)*

**Classification:**

When a patient presents with anemia, particularly iron deficiency anemia, it is critical to determine whether iron supplementation is necessary based on their serum ferritin levels. Only patients with reduced serum ferritin content require iron supplements. For those in other categories, efforts should focus on improving iron metabolism and absorption to correct anemia without supplementation. Iron supplementation is specifically indicated for patients with microcytic anemia, where the MCHC (mean corpuscular hemoglobin concentration) is less than 20%. These individuals have a genuine deficiency of iron stores and show specific cellular changes indicative of iron deficiency. However, such cases make up only about 15% of those who might benefit from iron supplementation, meaning 85% receive supplements unnecessarily. Identifying and appropriately treating those who truly need iron can alleviate unnecessary burdens on patients and healthcare resources. Personally, I do not hesitate to discontinue iron tonics for patients who come to me with multiple prescriptions that often include unnecessary iron supplements. Instead, I emphasize the importance of a balanced diet and regular exercise to manage their anemia effectively.

## Current global data, Indian data, The National Health Program:

Based on current global and Indian data, as well as the National Health Program spanning from 2005 to 2015, there have been noticeable changes in the incidence of anemia. In Karnataka, there has been a significant reduction of around 10% in the incidence of anemia despite the extensive provision of iron supplementation. However, in many other states, despite similar efforts in iron supplementation, the incidence of anemia continues to rise. This underscores the argument that simply providing iron supplements is not a comprehensive solution for anemia. It is essential to identify and address the underlying causes through better nutrition and dietary interventions.

This situation calls into question the efficacy of investing substantial resources in the National Health Program solely for iron supplementation. While some

states have shown promising results, overall impact remains limited. Expenditures continue to rise each year, yet many studies reveal minimal effectiveness in combating anemia nationwide.[1]

## Management:

My approach to managing patients with anemia, particularly in cases where iron deficiency is not prominent, involves prescribing Agnitundi Vati, Arogyavardhini Rasa, and Kumaryasava. These medications are aimed at improving the patient's metabolism through Deepana and Pachana treatments. By addressing Agni, we can correct the anemia without the need for iron supplementation.

In cases where there is a clear deficiency of iron, I may prescribe Punarnava Mandoora, Chandraprabha Vati, and Draksharishta. However, it is important to note that in my practice, I have never prescribed iron supplements to any patient unless they are truly in the iron deficiency category. If a patient is already taking iron supplements and they are genuinely iron deficient, I would not discontinue their prescription. Overall, my approach focuses on managing deficiency anemia effectively by treating Agnimandya (impaired digestion and metabolism). This holistic approach aims to address the root cause of anemia rather than solely relying on iron supplementation.

**Prescription-**

- Agnitundi Vati
- Arogyavardhini Rasa
- Kumaryasava

} for Deepana, Pachana

**Management for iron deficiency anemia**

- Chandraprabha Vati
- Punarnava Mandoora
- Draksharishta

[1] *Rai RK, Kumar SS, Sen Gupta S, Parasannanavar DJ, Anish TSN, Barik A, Varshney RK, Rajkumar H. Shooting shadows: India's struggle to reduce the burden of anaemia. Br J Nutr. 2023 Feb 14;129(3):416-427. doi: 10.1017/S0007114522000927.*

Chapter

7

# Ayurvedic Management of Psychiatric Disorders

I will be discussing with the issue from the point of view of a general Ayurvedic practitioner and the practical issues that we come across in the routine clinical practice related to psychiatry. According to Ayurveda, mind or Mannas is a dravya, which means it has a Karma or function as well as a Guna or property. Acharya Charak has said,

> खादीन्यात्मा मनः कालो दिशश्च द्रव्यसङ्ग्रहः ।
> सेन्द्रियं चेतनं द्रव्यं, निरिन्द्रियमचेतनम् ।। (Ch. Su 1/48)

In Indian philosophical thought, the connection between Atma (soul), Manas (mind), and Indriya (senses) is essential for attaining Jnyana (knowledge). This framework posits that the Atma, Manas, and Indriya must interact with Artha (objects of perception) to mediate sensations and produce knowledge. This interaction is seen as a means of connecting with the Atma to acquire true knowledge.

Contemporary science defines the mind as the entity responsible for thoughts and feelings, acting as the seat of the 'Faculty of Reason'. The mind is associated with perception, memory, emotion, and various cognitive functions. Most pharmacological treatments for mental conditions are designed to influence the brain, suggesting a strong link between the mind and brain.
However, there is an ongoing debate about whether the brain alone constitutes the mind or if there is more to it. Contemporary science often focuses on

biochemical changes in the brain to explain mental functions. Yet, Indian philosophical perspectives suggest that the mind is more than just brain activity, implying a deeper connection involving the Atma and a more holistic approach to understanding consciousness and knowledge.

This divergence raises the question of whether mind-related phenomena are purely biological or if they encompass broader, perhaps spiritual, dimensions. This holistic view challenges the reductionist approach of contemporary science, suggesting that understanding the mind fully might require integrating insights from both scientific and philosophical traditions.

From an Ayurvedic perspective, the Hridya (heart) is considered the seat of consciousness (Chetana). Even in contemporary science, many people challenge the popular notion that the brain is solely the seat of the mind, suggesting instead that emotions are linked to the heart. A survey conducted among psychiatrists in India revealed that 70% believe psychiatry is concerned with the mind, but none could definitively identify the brain as the seat of the mind. Additionally, 80.5% of respondents associated the term "mental" with the mind. Many believe that the mind is a distinct entity that cannot be identified solely with the brain.[1]

A recent study by Dr. John Andrew Armour has identified an anatomical entity known as the "heart brain." In his monograph, Dr. Armour presents research demonstrating the existence of a complex neurological system he terms the cardiac nervous system. This system, which consists of a large number of neurons, has been shown to have connections with the mind, heart, and emotions.[2]

## Mental health care act 2017

A substantial disorder of thinking, mood, perception, orientation, or memory that significantly impairs judgment, behavior, the ability to recognize reality, or the capacity to meet ordinary life demands, is considered a mental illness. This includes mental conditions related to the abuse of alcohol and drugs. However,

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*[1] Bakhle1, S. (n.d.). 2015 - Vol 2. issue 1: Indian Mental HealthA Survey of Psychiatrist's perception regarding the concept of 'Mind' and its position in psychiatry today. 2015 - Vol 2. Issue 1 | Indian Mental Health. http://indianmentalhealth.com/2015-vol2-issue1.html*
*2 Armour, J. A. (2003). Neurocardiology. Anatomical and Functional Principles. Boulder Creek, CA: HeartMath Research Center, Institute of HeartMath, Publication, (03-011).*

it does not include mental retardation, which is characterized by arrested or incomplete development of the mind, particularly marked by subnormal intelligence.

The clinical practice related to psychiatry is regulated by the Mental Health Act 2017. According to this act, mental illness is defined as a substantial disorder of thinking, mood, perception, orientation, or memory, significantly impairing judgment, behaviour, and the ability to recognize reality or meet ordinary life demands. Some conditions typically considered psychiatric illnesses may not be classified as mental illnesses under this act if they do not affect a person's daily activities. Thus, mental conditions associated with alcohol and drug abuse are included under mental illness, but mental retardation is not considered as mental illness by this act.[1]

## Mental health professional

According to the Mental Health Act 2017, it is mandatory to register as a mental or psychiatric practitioner to treat or deal with psychiatric conditions. If you are treating a psychiatric or mental illness, you must be registered with the specific board. A person with a postgraduate degree in Ayurveda Mano Rog Vigyan Avum Manas Roga is recognized as a professional psychiatric doctor under this act. Similar amendments have been made for practitioners of Homeopathy, Siddha, Unani, and other traditional knowledge systems, acknowledging their qualifications and allowing them to practice as psychiatric professionals.

**“Clinical psychologist” means a person—**
(i) having a recognized qualification in Clinical Psychology from an institution approved and recognized by the Rehabilitation Council of India, constituted under section 3 of the Rehabilitation Council of India Act, 1992; or (ii) having a Post-Graduate degree in Psychology, Clinical Psychology, or Applied Psychology, and a Master of Philosophy in Clinical Psychology or Medical and Social Psychology obtained after completion of a full-time course of two years, which includes supervised clinical training from any University recognized by the University Grants Commission established under the University Grants Commission Act, 1956, and approved and recognized by the Rehabilitation

[1] *Mental healthcare act, 2017. . https://main.mohfw.gov.in/sites/default/files/Final Draft Rules MHC Act, 2017 (1).pdf*

Council of India Act, 1992, or such recognized qualifications as may be prescribed.

As per the Rehabilitation Council of India Act of 1992, mental health establishments must be registered and adhere to specific norms, requiring a separate setup. A simple medical practitioner cannot present themselves as a mental health specialist. Thus, doctors practicing psychiatric conditions are regulated by a separate law, and it is essential to be aware of this existing legislation.

The DSM (Diagnostic and Statistical Manual of Mental Disorders), published by the American Psychiatric Association, is the main professional manual for psychiatrists in America. It includes classifications for Neurodevelopmental disorders, Schizophrenia spectrum and other psychotic disorders, Bipolar and related disorders, Depressive disorders, Anxiety disorders, Obsessive-compulsive and related disorders, Trauma and stressor-related disorders, Dissociative disorders, and Somatic symptom and related disorders.[1]

Earlier, the classification of psychiatric disorders was quite simple. They were categorized into two main types: neurosis and psychosis. Neurosis is generally considered a minor illness where the person is aware of their condition, whereas psychosis is a condition where the person is unaware of their illness but still exhibits symptoms. Psychiatric disorders also have subcategories, such as anxiety disorders.

In present-day practice, the diagnosis relies on the DSM model. The DSM, or Diagnostic and Statistical Manual of Mental Disorders, is published by the American Psychiatric Association. It groups psychiatric conditions under specific headings: neurodevelopmental disorders, schizophrenia spectrum and other psychotic disorders, bipolar and related disorders, depressive disorders, anxiety disorders, obsessive-compulsive and related disorders, trauma and stressor-related disorders, dissociative disorders, and somatic symptom and related disorders.

*1 https://en.wikipedia.org/wiki/DSM-5*

The standard protocol for diagnosing psychiatric disorders is also provided in the ICD classification (International Classification of Diseases). [1]

## Ayurvedic approach to the mental illness

Ayurvedic approach to the mental illness is based on the doshas. Rajas and Tamas are considered to be the doshas that affect the mind or manas.

> वायुः पित्तं कफश्चोक्तः शारीरो दोषसङ्ग्रहः ।
> मानसः पुनरुद्दिष्टो रजश्च तम एव च ।। (Ch.Su 1/ 57)
>
> प्रशाम्यत्यौषधैः पूर्वो दैवयुक्तिव्यपाश्रयैः ।
> मानसो ज्ञानविज्ञानधैर्यस्मृतिसमाधिभिः ।। (Ch.Su1/58)

In addressing mental illness, Ayurveda does not advocate pharmacological interventions but rather emphasizes non-pharmacological treatments. These include practices such as increasing awareness of one's surroundings (Jnyana), providing consolation or counselling (Dhairya), and engaging in meditation (Samadhi). It is important to differentiate these approaches from Daiva-vyapasharya Chikitsa, which is primarily intended for physical ailments.

There is sometimes confusion that Daiva-vyapashraya Chikitsa, involving practices like devotion and worship, is part of psychiatric treatment in Ayurveda. However, Ayurveda places emphasis on counselling that incorporates both philosophical and personal approaches.

In general, to achieve a healthy mind, Ayurveda advises against "vega dharana," which refers to voluntarily controlling certain reflexes. This principle applies not only to mental health but also to maintaining a healthy body. Ayurveda suggests that such voluntary control should be avoided for overall well-being.

> आयुष्यं भोजनं जीर्णे वेगानां चाविधारणम् ।
> ब्रह्मचर्यमहिंसा च साहसानां च वर्जनम् ।। (Su. Chi. 28/28)

Maintaining good mental health in Ayurveda involves several key principles. Firstly, the quality of food is crucial, as there is a direct relationship between food and the mind. Ayurveda classifies food into Rajasika (stimulating) and Tamasika (dull) categories. Consuming Rajasika and Tamasika foods can directly impact the mind.

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[1] https://thewrightinitiative.com/misc/psychosis-spectrum-disorders.html

Additionally, mental health is influenced by lifestyle factors such as Vega Vidharana (refraining from controlling natural urges), which also affects the mind. Brahmacharya (perceiving knowledge), Ahimsa (non-harming), and Sāhasānāṃ ca varjanam (not exceeding one's limits) are essential principles emphasized in Ayurveda for maintaining mental health. These principles collectively contribute to a balanced and healthy state of mind.

The causes of mental disorders as mentioned in Charaka Samhita are:

> भयशोकक्रोधलोभमोहमानेर्ष्यामिथ्यादर्शनादिर्मानसो मिथ्यायोगः । । (Ch . Su 11/39)
>
> अभिद्रोहानृतवचनम्, अनृतवचनात्
> कामक्रोधमानद्वेषपारुष्याभिघातभयतापशोकचिन्तोद्वेगादयः प्रवृत्ताः । (Ch. Vi. 3/24)

The causes of mental disorders (Manas roga) according to Ayurveda are rooted in various strong emotions such as fear (bhaya), grief (shoka), anger (krodha), greed (lobha), attachment (moha), and jealousy (irshya). These emotions are considered mithya yoga for the mind, meaning they create false or detrimental associations that lead to mental afflictions.

Additionally, actions like harming others (Abhidroha) or speaking falsehoods (anrita vachanam) are also cited as causes of mental disorders. These actions contribute to disturbances such as anxiety (chintna) and agitation (udvega) in the mind, eventually leading to mental illnesses (mansa vyadhi). Therefore, both emotional states and harmful actions are recognized in Ayurveda as significant contributors to mental health disturbances.

## Somatization of psychiatric illness or otherwise?

The term "psychosomatic disorder" is widely used today, suggesting that a psychiatric disorder may eventually manifest as a physical illness over time. However, contemporary medicine does not firmly establish the reverse concept where physical illness directly causes psychiatric disorders. It is acknowledged, though, that any physical illness can impact a person's mental state, often necessitating prescriptions in clinical practice that include anxiolytics, antidepressants, or sedatives.

In contrast, Ayurveda, as articulated by Acharya Charaka, offers the perspective encapsulated in the statement " Śārīro jāyate pūrvaṃ dehe ." This indicates that initially, a physical illness (Sharirika vyadhi) can lead to subsequent mental illness (Manasika vyadhi). Ayurveda recognizes that physical ailments can

sometimes manifest as psychiatric symptoms, aligning with its holistic approach that acknowledges the interconnection between the body and mind.

शारीरो जायते पूर्वं देहे, मनसि मानसः।
वैचित्त्यमरतिर्ग्लानिर्मनसस्तापलक्षणम्।।
इन्द्रियाणां च वैकृत्यं ज्ञेयं सन्तापलक्षणम्। (Ch.Chi. 3/36,37)

Initially, according to Ayurveda as stated by Acharya Charaka, an illness begins as a physical ailment (Sharirika vyadhi) and may later develop into a mental illness (Manasika vyadhi). This means that a somatic illness can eventually lead to a mental illness. Conversely, Ayurveda also recognizes that a physical illness can manifest as psychiatric symptoms. For instance, in the case of Jwara (fever), which is primarily a physical condition, it can also present with psychological symptoms such as anxiety, irritability, or mood disturbances. This holistic understanding underscores Ayurveda's view of the interconnectedness between the body and mind in health and illness.

ऋत्वहोरात्रदोषाणां मनसश्च बलाबलात्।
कालमर्थवशाच्चैव ज्वरस्तं तं प्रपद्यते।। (Ch. Chi 3/75)

The presence of Jwara (fever) can be attributed to factors related to the mind as well, as described in Ayurvedic texts. According to Ayurveda, " Manasaśca balābalāt" suggests that mental weaknesses or imbalances can contribute to the manifestation of Jwara over time. This concept underscores the belief that psychological factors, such as stress, anxiety, or emotional instability, can weaken the body's immune system or disrupt its balance, thereby predisposing an individual to conditions like fever. Ayurvedic texts provide various examples that illustrate the close relationship.

## Somatization

अतीव चिन्तनाच्चैव शोकात्क्रोधाद्भयात्तथा। (Ch. Chi 30/181)

In Ayurveda, the concept of Dhatu Kshaya (depletion of bodily tissues) is linked to mental activities such as excessive worrying, anger, shock, and fear. These mental states are considered aberrations that can disturb the balance of doshas and thereby affect the dhatus (tissues) of the body.

When a person experiences prolonged periods of worry, intense anger, shock, or fear, it can disrupt the normal functioning of the body's physiological processes. According to Ayurvedic principles, these emotional disturbances can lead to an imbalance in the doshas, particularly Vata and Pitta, which govern various

metabolic and physiological functions, including the formation and nourishment of Dhatus.

A healthy body in Ayurveda is seen as dependent not only on physical activities and nutrition but also on maintaining a positive mental attitude and emotional balance. This holistic approach emphasizes that mental well-being plays a crucial role in overall health and vitality. Therefore, managing mental activities and promoting healthy thoughts and attitudes are considered essential for preventing imbalances that could lead to Dhatu Kshaya and other health disorders.

## Cause of Ama production

> न च खलु केवलमतिमात्रमेवाहारराशिमामप्रदोषकरमिच्छन्ति अपि तु खलु
> गुरुरूक्षशीतशुष्कद्विष्टविष्टम्भिविदाह्यशुचिविरुद्धानामकालेचान्नपानानामु-पसेवनं,
> कामक्रोधलोभमोहेर्ष्याह्रीशोकमानोद्वेगभयोपतप्तमनसा वा यदन्नपानमुपयुज्यते,
> तदप्याममेव प्रदूषयति।। (Ch. Vi 2/8)

Negative emotions such as desire, anger, greed, attachment, and sorrow during meals can cause the formation of Ama. Maintaining a positive and healthy mindset while eating is crucial for overall well-being.

## Secret of health

> त्यागः प्रज्ञापराधानामिन्द्रियोपशमः स्मृतिः।
> देशकालात्मविज्ञानं सद्वृत्तस्यानुवर्तनम्।।
> आगन्तूनामनुत्पत्तावेष मार्गो निदर्शितः।
> प्राज्ञः प्रागेव तत् कुर्याद्धितं विद्याद्यदात्मनः।। (Ch. Su.7/53,54)

"Prajñāparādha" is regarded as the primary cause of all diseases and is closely linked to the mind. Therefore, according to Ayurveda, maintaining good health involves avoiding and regulating the sensory organs (indriya upashama), remembering social norms and conditions (smriti), and being mindful of the self, time, place, and following ethical conduct (sadvrittasya anuvartanam). Ayurveda emphasizes that the mind holds greater significance than the body in achieving a healthy state. A person who is physically strong should also possess a robust and healthy mind.

> क्षुत्पिपासायासश्रमशीतोष्णवातवर्षासुखदुःखसंस्पर्शसहत्वं,
> शोकदैन्यमानोद्वेगमदलोभरागेर्ष्याभयक्रोधादिभिरसञ्चलनम्, अहङ्कारादिषूपसर्गसञ्ज्ञा,
> लोकपुरुषयोः सर्गादिसामान्यावेक्षणं, कार्यकालात्ययभयं, योगारम्भे सततमनिर्वेदः,
> सत्त्वोत्साहः,

अपवर्गाय धीधृतिस्मृतिबलाधानं; नियमनमिन्द्रियाणां चेतसि, चेतस आत्मनि, आत्मनश्च; धातुभेदेन शरीरावयवसङ्ख्यानमभीक्ष्णं,
सर्वं कारणवद्दुःखमस्वमनित्यमित्यभ्युपगमः, सर्वप्रवृत्तिष्वघसञ्ज्ञा, सर्वसन्न्यासे सुखमित्यभिनिवेशः; एष मार्गोऽपवर्गाय, अतोऽन्यथा बध्यते; इत्युदयनानि व्याख्यातानि।। (Ch.Sha 5/12)

The ability to endure variations in surroundings such as excessive thirst or hunger is linked to a healthy body, while a healthy mind is viewed as a path to achieving salvation.

## Anxiety Disorder

In clinical practice, a significant portion of the patients you encounter will likely have anxiety disorders. Anxiety disorders are not confined to psychiatric conditions alone; nearly every patient with any illness may experience some form of anxiety. It is now recognized that more than 95% of the population will experience an anxiety or depression disorder at some point in their lives. The causes of anxiety can be diverse. From a psychiatric perspective, anxiety disorders can be classified based on their causes.[1]

1. Separation anxiety disorders – Separation from any person who is close to you. It could be about the pet animals too.
2. Specific phobia – Fear of any specific issues. Such as a person may have fear of going into the certain places or so on.
3. Social anxiety disorders (Social phobia) – Fear about the social activities and keeping oneself separated.
4. Agoraphobia – A fear of going out. The person limit himself to the limited areas.

These are presented as a group of anxiety disorders. Based upon these clinical presentations I consider them as the Raja-dosha.

*1 Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5) https://en.wikipedia.org/wiki/DSM-5*

Another group of anxiety disorders are:

1. Panic disorders – This category involves severe presentations where individuals experience overwhelming confusion and lack perception of their surroundings or situation.
2. Obsessive- compulsive disorders OCD is classified both within anxiety disorders and as a separate condition.
3. Selective mutism – Person would be just keeping silent and avoiding the issues.

I consider above three to be Tama- dosha.

Then another group of anxiety disorder we deal very commonly in clinical practice comprises of:

1. Medication/ substance induced anxiety disorder – Like alcohol or other drug of abuse.
2. Anxiety disorder due to another medical condition – This is more common. A person who is having any chronic disease would have anxiety as a component, and every practioners in their daily clinical practice would be prescribing some anxiolytic drugs regularly.

In the current classification, acute stress disorders and post-traumatic stress disorders (PTSD) are no longer categorized under anxiety disorders. However, they remain significant in clinical practice, especially in surgical settings where patients may experience anxiety before or after surgery.

I have further sub-classified these disorders based on the Ayurvedic concepts of Raja-dosha and Tama-dosha. Rather than targeting individual disorders, we address them as conditions arising from imbalances related to Raja and Tama doshas. This approach aligns with Ayurvedic principles to effectively manage these psychological conditions.

Anxiety disorders are prevalent in clinical settings, with a notable difference in the incidence of specific disorders between genders. Panic disorders tend to occur more frequently in females, while social phobia is more commonly observed in males. In the context of Ayurveda, anxiety is described using terms like "dainya" and "udvega."

From an Ayurvedic perspective, anxiety is often viewed as a symptom of other underlying conditions rather than as an isolated disorder requiring separate treatment. This approach suggests that by addressing the root cause of the

primary illness, the associated anxiety will naturally diminish. For instance, dainya and udvega are symptoms of conditions such as Rasa dhatugata jwara. By effectively treating jwara, the anxiety component is expected to subside without the need for specific anxiolytic medications.

This holistic approach aligns with the Ayurvedic principle of treating the body as an interconnected system, where symptoms are manifestations of deeper imbalances. Hence, the focus remains on restoring overall harmony and balance within the body, which in turn alleviates the symptoms, including anxiety.

> गुरुत्वं दैन्यमुद्वेगः सदनं छर्द्यरोचकौ।
> रसस्थिते बहिस्तापः साङ्गमर्दो विजृम्भणम्।। (Ch.Chi 3/76)

For example, udvega is also produced due to vata prakopa.

> कषायकटुतिक्तरूक्षलघुशीतव्यवायव्यायामवमनविरेचनास्थापन-
> शिरोविरेचनातियोगसन्धारणानशनाभिघातातपोद्वेगशोकशोणितातिषेक-
> जागरणविषमशरीरन्यासानुपसेवमानस्य तथाविधशरीरस्यैव क्षिप्रं वातः
> प्रकोपमापद्यते।। (Ch.Ni. 4/36)

The conditions for managing Udvega align with those for managing Vata prakopa, meaning any Vata Shamaka treatment can be used to address anxiety. Anxiety, or udvega, is also noted in cases of Atisara (diarrhea), as both conditions are interrelated.

> अतिशीतस्निग्धरूक्षोष्णगुरुखरकठिनविषमविरुद्धासात्म्यभोजनादभोजनात्
> कालातीतभोजनाद् यत्किञ्चिदभ्यवहरणात्
> प्रदुष्टमद्यपानीयपानादतिमद्यपानादसंशोधनात् प्रतिकर्मणां
> विषमगमनादनुपचाराज्ज्वलनादित्यपवनसलिलातिसेवनादस्वप्रा-
> दतिस्वप्राद्वेगविधारणाद्दतुविपर्ययादयथाबलमारम्भाद्भयशोकचित्तोद्वेगातियोगात्
> कृमिशोषज्वरार्शोविकारातिकर्षणाद्वा व्यापन्नाग्नेस्त्रयो दोषाः प्रकुपिता भूय
> एवाग्निमुपहत्य पक्वाशयमनुप्रविश्यातीसारं सर्वदोषलिङ्गं जनयन्ति।।
> (Ch. Chi. 19/8)

From a clinical standpoint, anxiety should not be diagnosed as a separate condition; instead, the primary focus should be on addressing the underlying diseases. Counselling, however, plays a crucial role. Providing patients with reassurance that anxiety is a common, manageable phenomenon can be immensely helpful. There are two categories of counselling: philosophical and personal.

Philosophical counselling is an emerging field and is considered more effective than personal counselling. Philosophical counselling involves making general statements that help patients view their illness as related to factors beyond their

control. An effective philosophical counselling technique is to remind patients that many others have similar or even more severe conditions. This perspective can help reduce anxiety by making patients feel their problems are less severe in comparison.

Personal counselling, on the other hand, involves delving deeply into the patient's individual issues and offering tailored advice. While possible, this approach is practically challenging and time-consuming.

In practice, I prefer philosophical counselling over personal counselling due to its broader applicability and effectiveness. I generally avoid prescribing specific medications for anxiety symptoms unless the symptoms are severe or unmanageable with usual advice. In such cases, I prescribe Saraswatarishta and Smritisagara Rasa for patients with Tama lakshana and Kamadugha Rasa for those with Raja lakshana. However, I do not consider these as anxiolytic drugs.

Patients who come to us with anxiolytic prescriptions from other practitioners often experience adverse effects such as drowsiness, sedation, confusion, stomach upset, nausea, diarrhoea, sexual dysfunction, headache, dry mouth, blurred vision, constipation, orthostatic hypotension, increased heart rate, abnormal heartbeat, weight gain, suicidal thoughts, and hypertension. The most concerning issue is dependence, as long-term use of anxiolytic drugs can make withdrawal difficult. In these situations, Ayurveda physicians can significantly improve patient outcomes by managing these adverse effects and reducing dependence on anxiolytic drugs.

| Symptoms | Treatment |
|---|---|
| Drowsiness, Sedation, Confusion | Chandraprabaha, Saraswatarishta considering Vata prakopa |
| Stomach upset Nausea | Kamadugha Rasa |
| Diarrhea | Mustakarishta |
| Sexual dysfunction | Chandraprabha Vati as Rasayana |
| Headache | Sootashekhara Rasa |
| Dry mouth | Draksharishta |
| Blurred vision | Triphala Choorna |
| Constipation | Avipattikara Choorna |
| Orthostatic hypotension<br>Increased heart rate | Prabhakara Vati |
| Weight gain | Kumaryasava |
| Suicidal thought | Counselling, Smritisagara Rasa |
| Marginal Hypertension | Saraswatarishta |

Other measures that I use in my clinical practice are

- Pranayama and Yoga
- Tailadhara / Rajayapana basti
- Diet and exercise
- Lifestyle modifications

In quite severe cases of anxiety, Taildhara (oil pouring) or Rajayapana Basti (medicated enema) can be employed. When there is an associated disease that can be managed with Vatahara treatments, I choose this method, as it can also help relieve anxiety.

Spicy foods (Katu rasa) and foods that are Vidahi should be avoided as they can trigger anxiety. While this is not established in contemporary medicine, it has significant relevance in clinical practice.

Another group of patients falls into the category of depression, which is correlated with Vishaada, a Vata nanatmaja vyadhi (a disease predominantly caused by Vata dosha). Depression often presents with a depressed mood and can manifest in both children and adolescents as irritability. In adults, it typically presents as a depressed mood and a reduced interest in activities. Other symptoms include weight changes and appetite disturbances. In children, this might present as abnormal weight gain or failure to gain weight. Sleep disturbances, such as insomnia or hypersomnia, can also indicate depression. Additionally, psychomotor agitation (tremors or uncontrolled body movements), fatigue, feelings of worthlessness, diminished ability to concentrate or make decisions, and recurrent thoughts of death or suicidal ideation are common presentations of depression.

My approach to treating depression is based on Vataja nanatmaja vyadhi chikitsa (treatment for diseases caused by Vata dosha). Therefore, I prefer using Ashwagandharishta and Chandraprabha Vati, along with procedures like Shirodhara and Basti, considering depression as a Vataja nanatmaja vyadhi.

Antidepressants, such as sertraline, fluoxetine, and citalopram, can cause adverse effects like nausea, increased appetite and weight gain, loss of sexual desire and other sexual problems such as erectile dysfunction and decreased orgasm, fatigue and drowsiness, insomnia, dry mouth, blurred vision, and constipation. Clinically, it is challenging for physicians to distinguish between these adverse effects and the initial symptoms of depression. Generally, if a

patient has been on antidepressants for the last three months and presents with these symptoms, I consider them to be adverse effects of the antidepressants and attempt to discontinue the medication wherever possible. Patients who have become dependent on antidepressants often find it difficult to stop taking them, so the decision must be case-specific.

For treating these adverse effects, the approach is based on the specific presentation. For example, for nausea, I prescribe Kamadugha Rasa and Sootashekhara Rasa for a short duration.

Another common condition that occurs along with depression is insomnia. Insomnia is defined as a repeated difficulty with sleep initiation, maintenance, consolidation, or quality despite adequate time and opportunity for sleep, resulting in some form of daytime impairment. To confirm insomnia, the patient's symptoms should be assessed using a sleepiness scale, which measures the quality of sleep by evaluating whether the person feels sleepy during the day.[1]

In psychiatric practice, a sleepiness scale is used where patients rate various questions on a scale of 0 to 3. If the total score exceeds 10, it indicates a significant abnormality in sleep quality, prompting the need for intervention to improve sleep. Psychiatrists typically recommend non-pharmacological interventions for this purpose. These interventions include five protocols designed to enhance sleep quality without using medications.

**1. Sleep hygiene**

- Maintain a regular sleep routine.
- Avoid daytime naps.
- Don’t stay in bed awake for more than 5-10 minutes.
- Don’t watch TV, use the computer or read in bed.
- Take caffeinated drinks with caution.
- Avoid inappropriate substances that interfere with sleep.
- Clean, fresh air.
- Have a quiet, comfortable bedroom.

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*1 . https://www.sleep-apnea-guide.com/epworth-sleepiness-scale.html*

**2. Cognitive behaviour therapy**

Cognitive behavioural therapy for insomnia is a structured program that helps you identify and replace thoughts and behaviours that cause or worsen sleep problems with habits that promote sound sleep.

**3. Relaxation therapy**

- Deep breathing
- Massage
- Meditation
- Yoga
- Biofeedback
- Music & Art therapy
- Aromatherapy

**4. Stimulus control therapy**

- Use the bed only for sleeping and sexual activity (no reading, TV, eating or working in bed)
- Go to bed only when you are sleepy
- If unable to fall sleep in 15-20 minutes, get out of bed to do something relaxing until sleepy; this can be repeated as often as needed.
- Do not spend more time on bed than is needed by establishing a standard wake-up time.
- Refrain from day- time napping

**5. Sleep restriction therapy**

This theory is grounded in the understanding that excessive time spent in bed can perpetuate insomnia. By limiting the amount of time spent in bed, individuals are encouraged to achieve more efficient and consolidated sleep that is both regular and predictable.

## Alcohol related psychological and physical disorders

Current statistics indicate a rapid increase in alcohol consumption in India. In clinical practice, physicians commonly encounter alcohol-related psychological and physical disorders, which are closely interconnected.

Regular alcohol consumption is now recognized as a psychological condition. According to the DSM-5 classification, alcohol and other substance-induced psychotic disorders are categorized and explained. Substances that induce prominent hallucinations or delusions fall under this classification.

Individuals who struggle to resist alcohol intake on their own are considered to have a psychiatric condition requiring intervention. Delusions and false beliefs also fall within the realm of psychological conditions according to DSM-5 criteria.

In contrast, Ayurveda does not classify alcohol consumption itself as a psychological illness. Instead, alcohol is likened to Visha (poison). However, Ayurveda also acknowledges that alcohol consumed in controlled quantities and quality can have health benefits.

The understanding of alcohol-related disorders thus spans both modern psychiatric classifications and traditional Ayurvedic perspectives, reflecting a complex interplay between cultural, medical, and psychological factors in managing these conditions in clinical settings.[1]

According to Charaka Samhita, Madya (alcohol) is compared to Anna but at the same time if it is consumed irresponsibly considering dose and other things, it can be a poison.

किन्तु मद्यं स्वभावेन यथैवान्नं तथा स्मृतम्।
अयुक्तियुक्तं रोगाय युक्तियुक्तं यथाऽमृतम्।।५६।।
प्राणाः प्राणभृतामन्नं तदयुक्त्या निहन्त्यसून्।
विषं प्राणहरं तच्च युक्तियुक्तं रसायनम्।। (Ch. Chi 24/59, 60)

The majority of people who consume alcohol in India tend to consume stronger alcoholic beverages. Consequently, India experiences a significant number of diseases and deaths related to alcohol compared to many other countries. [2]

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*1 https://www.moneycontrol.com/news/india/indias-alcohol-consumption-to-touch-6-5-billion-litres-by-2020-5223981.html*

*2 Global information system on alcohol and health. World Health Organization. https://www.who.int/data/gho/data/themes/global-information-system-on-alcohol-and-health*

## De-addiction

In contemporary medicine, several medications and de-addiction drugs are used to help individuals overcome alcohol addiction. Some of these include Disulfiram, which induces unpleasant effects after alcohol consumption; Acamprosate, which reduces the urge to drink; and Naltrexone, which blocks the pleasurable effects of alcohol.

The primary goal in alcohol de-addiction is to abstain from alcohol consumption. Counselling and group motivation are considered highly effective forms of support in achieving this goal. Many government programs now utilize recovered alcoholics to conduct counselling sessions, leveraging their personal experiences to motivate others to avoid alcohol. Platforms like Alcoholics Anonymous, available online, provide structured support for individuals seeking recovery. The family environment plays a crucial role in supporting individuals through the de-addiction process. Positive familial support can significantly contribute to an individual's motivation and success in abstaining from alcohol.

**Stages of alcohol intoxication**

1. Sobriety
2. Euphoria
3. Excitement
4. Confusion
5. Stupor
6. Coma
7. Death

Here, first three conditions do not require any medical intervention as such. Clinically the next three conditions are important to deal with i.e. confusion, stupor and coma. Intravenous fluid, glucose, vitamins and thiamine can be given for managing these three stages. No other medical intervention is needed for acute alcoholism.

Ayurveda has given four stages of alcoholism.

बुद्धिस्मृतिप्रीतिकरः सुखश्च पानान्ननिद्रारतिवर्धनश्च ।
सम्पाठगीतस्वरवर्धनश्च प्रोक्तोऽतिरम्यः प्रथमो मदो हि अव्यक्तबुद्धिस्मृतिवाग्विचेष्टः
सोन्मत्तलीलाकृतिरप्रशान्तः ।
आलस्यनिद्राभिहतो मुहुश्च मध्येन मत्तः पुरुषो मदेन ।।८।।
गच्छेदगम्यान्न गुरूंश्च मन्येत् खादेदभक्ष्याणि च नष्टसञ्ज्ञः ।
ब्रूयाच्च गुह्यानि हृदि स्थितानि मदे तृतीये पुरुषोऽस्वतन्त्रः ।।९।।

चतुर्थे तु मदे मूढो भग्नदार्विव निष्क्रियः ।
कार्याकार्यविभागज्ञो मृतादप्यपरो मृतः ।।१०।।
को मदं तादृशं गच्छेदुन्मादमिव चापरम् ।
बहुदोषमिवामूढः कान्तारं स्ववशः कृती ।।११।। (Ch.Chi. 24/8,9,10,11)

**Hangover symptoms**

The other group of symptoms that people who consume alcohol exhibit are hangover symptoms. These include:

1. Fatigue and weakness
2. Excessive thirst and dry mouth
3. Headaches and muscle aches
4. Nausea vomiting or stomach-ache
5. Poor or decreased sleep
6. Increased sensitivity to light and sound
7. Dizziness
8. Shakiness

**Prescription:**

- Sootashekhara Rasa
- Kamadugha Rasa
- Avipattikara Choorna

Acharya Charaka categorized these symptoms as Pitta Prakopa Lakshana.

आध्मानमुद्गिरणमम्लरसो विदाहोऽजीर्णस्य पानजनितस्य वदन्ति लिङ्गम्
ज्ञेयानि तत्र भिषजा सुविनिश्चितानि पित्तप्रकोपजनितानि च कारणानि ।
(Ch. Chi 24/20,21)

The signs and symptoms of alcohol withdrawal include nausea, vomiting, diaphoresis, agitation, anxiety, headache, tremor, seizures and visual & auditory hallucinations.

**Prescription:**

- Smritisagara Rasa
- Kamadugha Rasa
- Saraswatarishta
- Taila Dhara
- Matra Basti

## Alcoholic ketoacidosis

Alcoholic ketoacidosis is a rare but serious medical emergency that can occur after prolonged heavy drinking followed by sudden cessation. Symptoms

include nausea, vomiting, severe abdominal pain, tachypnoea, hypothermia, and hematemesis, among other complications. Treatment typically involves maintaining arterial pH below 7.3 and bicarbonate levels below 75 meq/l with intravenous fluids like Ringer's lactate or bicarbonate, along with thiamine supplementation. Ayurvedic treatment alone may not suffice for managing this condition. If exclusively relying on Ayurvedic treatment, I would prescribe Arogyavardhini Rasa, Kamadugha Rasa, and Kumaryasava after stabilizing the patient's overall condition. This condition in Ayurveda texts has been described as Madatyaya.

हिक्काश्वासशिरःकम्पपार्श्वशूलप्रजागरैः ।
विद्याद्बहुप्रलापस्य वातप्रायं मदात्ययम् ।।
तृष्णादाहज्वरस्वेदमोहातीसारविभ्रमैः ।
विद्याद्भरितवर्णस्य पित्तप्रायं मदात्ययम् ।। (Ch. Chi 24/16,17)

छर्द्यरोचकहृल्लासतन्द्रास्तैमित्यगौरवैः ।
विद्याच्छीतपरीतस्य कफप्रायं मदात्ययम् ।
ज्ञेयस्त्रिदोषजश्चापि सर्वलिङ्गैर्मदात्ययः ।। (Ch. Chi 24/18)

Madatyaya is a condition that can arise from chronic alcohol abuse and is characterized by symptoms such as excessive talking (bahu pralapa), hiccups (hikka), dyspnoea (shwasa), vomiting (chardi), loss of appetite (arochaka), and fainting (murccha). This condition is considered incurable without the use of intravenous fluids. Intravenous fluid therapy is essential in Madatyaya to prevent complications such as ketoacidosis, which can occur if the condition worsens.

## Alcohol withdrawal [Paramada]

Ketoacidosis is a severe and acute medical emergency characterized by the accumulation of ketones and acid in the blood, often associated with conditions like diabetic ketoacidosis or alcoholic ketoacidosis.

Alcohol withdrawal, on the other hand, is generally considered less severe compared to ketoacidosis. It encompasses a range of symptoms known as Paramada, which can include mild symptoms such as nausea, vomiting, fever, sweating, restlessness, and headache. In more prolonged or severe cases of alcohol withdrawal, a condition known as delirium tremens (DT) can occur. DT is marked by more severe symptoms including tremors, agitation, hallucinations, and in some cases, symptoms like tachycardia), hypertension, and elevated body temperature. Delirium tremens is a serious complication of alcohol withdrawal that requires medical attention due to the potential for life-threatening complications such as cardiovascular instability and seizures.

**Signs and symptoms of alcohol withdrawal [Paramada]**

- Nausea and vomiting
- Diaphoresis
- Agitation and anxiety
- Headache
- Tremor
- Seizures
- Visual and auditory hallucinations:
- Delirium tremens: tachycardia and hypertension, temperature elevation, delirium

> श्लेष्मोच्छ्रयोऽङ्गगुरुता विरसास्यता च विण्मूत्रसक्तिरथ तन्द्रिररोचकश्च ।
> लिङ्गं परस्य च मदस्य वदन्ति तज्ज्ञास्तृष्णा रुजा शिरसि सन्धिषु चापि भेद ।।
> (Su.Ut 47/20)

Acharya Sushruta has described Paramada as Kapha- pittaja vyadhi.

**Prescription:**

- Smritisagara Rasa
- Kamadugha Rasa
- Saraswatarishta
- Taila dhara and Matra basti- occasional use

These chronic conditions require long-term intervention, and the patient's response would be good if they stopped consuming alcohol. But all these patients need to be observed and investigated for hepatic damage**.**

## Signs of Chronic alcoholism

When an individual consumes over 100ml of alcohol daily and develops dependence, they are diagnosed with chronic alcoholism. This condition leads to serious outcomes including liver damage, gynecomastia, chronic liver failure, testicular shrinkage, liver cirrhosis, and fetal alcohol syndrome (FAS) in pregnant women. FAS can severely harm the fetus and newborn, characterized by distinct facial features like small eyes, a broad philtrum, thick upper lips, and absence of nasal bridges.

To summarize, conditions such as alcoholic ketoacidosis, Madatyaya, and Paramada are critical and demand urgent medical attention. Chronic alcoholism can lead to profound harm to the body and, if untreated, can potentially be fatal. Therefore, it is crucial for individuals grappling with alcohol

addiction to seek professional help and supportive care to address their condition effectively. Seeking assistance can significantly improve outcomes and quality of life for those affected by alcohol dependence.

Unless the patient has established cirrhosis, a chronic hepatic pathology might be treated with:

- Arogyavardhini Rasa
- Kamadugha Rasa
- Kumaryasava
- Shirodhara Rajayapana basti

Shirodhara and Rajayapana basti are also prescribed, usually in such conditions which can help in at least pulling on the status. I believe that once hepatic damage occurs, reversing the condition is unlikely. Fatty degeneration and other complications arising from alcoholism, such as cirrhosis of the liver, peptic ulcer disorders, gastritis, pancreatitis, and even carcinoma, along with cardiovascular conditions like hypertension, cardiomyopathy, and atrial fibrillation, typically lead to irreversible consequences.

## Complications of alcoholism

- Gastrointestinal -Cirrhosis of the liver, peptic ulcer disease, gastritis, pancreatitis, and carcinoma
- Cardiovascular - Hypertension, cardiomyopathy, atrial fibrillation ("holiday heart syndrome ")
- Neurological - Peripheral neuropathy leading to ataxia, Wernicke encephalopathy, Korsakoff psychosis, and structural changes in the brain leading to dementia
- Immunologic - Suppression of neutrophil function and cell-mediated immunity
- Endocrine - In males, increase in oestrogen and decrease in testosterone, leading to impotence, testicular atrophy, and gynecomastia
- Obstetric-foetal (i.e. mental retardation, facial deformity, other neurologic problems)

## Avoidant personality disorder [Chronic alcoholism]

Avoidant Personality Disorder (APD) is a challenging condition where individuals become highly dependent on alcohol, and reversing the condition is often considered extremely difficult. APD is classified in the DSM (Diagnostic and

Statistical Manual of Mental Disorders) where individuals exhibit more than four specific symptoms. These symptoms include avoiding occupational activities, reluctance to engage in social situations, avoidance of interpersonal relationships, fear of criticism or rejection, and a pattern of inhibited behavior. Treating individuals with Avoidant Personality Disorder can be particularly challenging in clinical practice. As a result, I tend to avoid taking on such patients in my practice. If a patient with APD insists on treatment, I may prescribe medications like Chandraprabha Vati, Saraswatarishta, Takradhara, and Rajayapana basti. However, I cannot guarantee highly satisfactory results due to the complexity and chronic nature of APD.

So once the patient has chronic alcoholism which results in a personality disorder, it becomes virtually difficult or impossible to treat that condition.

# Premenopausal and post-menopausal syndrome

## Premenopausal syndrome

- Menstrual irregularities
- Prolonged and heavy menstruation
- Intermittent amenorrhea
- Vasomotor symptoms
- Insomnia

## Post-menopausal syndrome

- Hot flashes
- Cold sweats
- Irregular menstrual bleeding
- Urogenital atrophy
- Dyspareunia
- incontinence
- Cognitive and affective disturbance

Premenopausal and post-menopausal syndrome are another psychiatric related condition to be managed.

> आर्तवक्षये यथोचितकालादर्शनमल्पता वा योनिवेदना च;
> तत्र संशोधनमाग्नेयानां च द्रव्याणां विधिवदुपयोगः। (Su. Su 15/11)
>
> रसक्षये हृत्पीडाकम्पशून्यतास्तृष्णा च,
> शोणितक्षये त्वक्पारुष्यमम्लशीतप्रार्थना सिराशैथिल्यं च, (Su. Su .15/9)

Chandraprabha Vati, Punarnava Mandoora, Draksharishta/ Usheerasava and Shatavari Rasayana are my prescription for such conditions considering

Rasakshaya or Rajakshaya. This prescription is not for psychiatric illness rather it is for physical illness presented with psychiatric symptoms.

## Schizophrenia

Schizophrenia is another disease that we come across. There is a legal issue that we come up with when it comes to treating schizophrenia as treating it as a general physician is not advisable. It is categorized in 4 categories:

- Positive symptoms
- Negative symptoms
- Cognitive symptoms
- Mood symptoms

For this, I would refer the Unmaada roga.

एकैकशः सर्वशश्च दोषैरत्यर्थमूर्छितैः ।
मानसेन च दुःखेन स च पञ्चविधो मतः ।।
विषाद्भवति षष्ठश्च यथास्वं तत्र भेषजम् ।
स चाप्रवृद्धस्तरुणो मदसञ्ज्ञां बिभर्ति च ।। (Su.Ut 62/2,3)

Acharya Sushruta has described six types Unmada i.e Vataja, Pittaj, Kaphaja, Tridoshaja, Manogata and Vishaja.

**Positive symptoms:**

Psychotic symptoms such as auditory hallucinations, delusions, and disorganized speech and behaviour are characteristic of certain mental health conditions. In Ayurveda, these symptoms are compared to Pittaja Unmaada, a condition characterized by agitated behaviour and other manifestations of disturbed mental health.

अमर्षसंरम्भविनग्नभावाः सन्तर्जनातिद्रवणौष्ण्यरोषाः ।
प्रच्छायशीतान्नजलाभिलाषः पीता च भाः पित्तकृतस्य लिङ्गम् ।। (Ch. Chi. 9/12)

## Negative Symptoms:

Negative symptoms are seen in Kaphaja unmaada. These are: decrease in emotional range, poverty of speech, and loss of interests and drive; the person with schizophrenia has tremendous inertia. These features can be seen in Kaphaja Unmaada.

बुद्धिं स्मृतिं चाप्युपहत्य चित्तं प्रमोहयन् सञ्जनयेद्विकारम् ।।११।।
वाक्चेष्टितं मन्दमरोचकश्च नारीविविक्तप्रियताऽतिनिद्रा ।
छर्दिश्च लाला च बलं च भुक्ते नखादिशौक्ल्यं च कफात्मके स्यात्
(Ch. Chi. 9/13,14)

Cognitive symptoms are related to Manogata unmaada. Previous specific psychological illness triggers Unmaada.

> गाढं क्षते मनसि च प्रियया रिरंसोर्जायेत चोत्कटतमो मनसो विकारः ।
> चित्रं ब्रवीति च मनोऽनुगतं विसञ्ज्ञो गायत्यथो हसति चापि मूढः ।।
> (Su.Ut.62/12,13)

## The mood symptoms

The mood symptoms are related to Vataja unmaada where a person would have unstable mood condition.

> अस्थानहासस्मितनृत्यगीतवागङ्गविक्षेपणरोदनानि ।
> पारुष्यकार्श्यारुणवर्णताश्च जीर्णे बलं चानिलजस्य रूपम् ।। (Ch. Chi. 9/10)

According to DSM-5, to meet the criteria for diagnosis of schizophrenia, the patient must have experienced at least 2 of the following symptoms,

- Delusions
- Hallucinations
- Disorganized speech
- Disorganized or catatonic behavior
- Negative symptoms

Ayurveda described it as a physical and psychological derangement. It is a physical illness presented with psychiatric symptoms. Though it is categorized as Manogata vyadhi, there is scope for treatment. According to our texts, the basic treatment to be given is Shodhana. Shoka has to be removed by proper counselling. But practically from the clinical point of view, as I have told already, I try to avoid those conditions for a primary treatment because of legal issues and also due to inconsistent results. Also, for a patient who is already on an antipsychotic drug, withdrawing the drug is quite dangerous, many times there could be severe aggravations. Therefore, withdrawal of psychoactive drugs particularly those used in schizophrenia, will be quite difficult.

In a patient who is already on the antipsychotic drugs and prefers some Ayurvedic treatment, usually I prescribe Smritisagara rasa and Saraswatarishta, and procedures such as Takradhara, and Virechana karma along with the existing treatment which can help to a certain extent to minimize the issues.

**Selected Conventional or First- Generation Antipsychotics**

| DRUG | Usual Daily Maintenance Dosage |
|---|---|
| Chlorpromazine | 400 mg |
| Thioridazine | 200 to 300 mg |
| Perphenazine | 24 mg |
| Fluphenazine | 10 to 20 mg |
| Haloperidol (Haldol) | 10 to 15 mg |
| Thiothixene (Navane) | 30 mg |
| Trifluoperazine | 20 mg |

**Second Generation Drugs**

| Drug | Year introduced |
|---|---|
| Aripiprazole (Abilify) | 2002 |
| Clozapine (Clozaril) | 1989 |
| Olanzapine (Zyprexa) | 1996 |
| Quetiapine (Seroquel) | 1998 |
| Risperidone (Risperdal) | 1994 |
| Ziprasidone (Geodan) | 2001 |

Anticholinergic effects, dyslipidaemia, and extrapyramidal symptoms are common complications of antipsychotic drugs. High-potency drugs frequently cause extrapyramidal symptoms. Patients experiencing anticholinergic effects may present with symptoms such as tachycardia. In such cases, along with the pre-existing medication, I would prescribe Draksharishta and Sootashekhara Rasa, which can significantly reduce these adverse effects.

For patients with dyslipidaemia, where cholesterol levels, particularly low-density lipoproteins (LDL), are elevated, management is crucial. Extrapyramidal symptoms, such as tremors, abnormal lip movements, and altered gait, are managed with Smritisagara Rasa, Ekangaveera Rasa, Tailadhara, and Matrabasti, which provide more reliable results. I emphasize that withdrawing the primary antipsychotic drugs is not advisable.

In cases of hyperprolactinemia, where patients present with reduced libido and infertility, I usually prescribe Makaradhwaja, though results are not always predictable or reliable. Some patients do experience improvement with this treatment.

Neuroleptic malignant syndrome, a rare but life-threatening condition associated with high fever, rigidity, and altered consciousness, requires immediate life-support treatment with limited scope for Ayurvedic interventions.

For postural hypotension, I prescribe Ashwagandharishta and Chandraprabha Vati. If a patient has cardiac abnormalities, such as a prolonged QT interval on an ECG, Prabhakara Vati is recommended.

Patients on antipsychotic drugs who experience seizures need careful evaluation and possibly a change in their prescription. For those experiencing sedation and sleepiness, Makaradhwaja can be prescribed. In cases of type 2 diabetes mellitus and weight gain, the approach is to treat the diabetes as per standard protocols without specific additional Ayurvedic management for weight gain.

- Anticholinergic effects - Draksharishta, Sootashekhara Rasa
- Dyslipidaemia - Arogyavardhini Rasa, Kumaryasava
- Extra pyramidal symptoms – Smriti Sagar Rasa, Ekangaveera Rasa, Tailadhara and Matrabasti
- Hyperprolactinemia - Makaradhwaja
- Postural hypotension – Ashwagandharishta, Chandraprabha Vati
- Prolonged QT interval – Prabhakara vati
- Sedation – Makaradhwaja
- Seizures – need evaluation

**Key points**

- Concept of Manas in Ayurveda has a strong foothold.
- Self-awareness is the best method to prevent and manage psychological disorders.
- Physicians should be aware of the legal provisions related to mental health.
- Over-prescription of anxiolytics and antipsychotics is a clinical problem.
- Majority of the adverse effects of psychoactive prescriptions can be effectively managed with Ayurvedic protocol.

The concept of Manas (mind) in Ayurveda offers a more comprehensive understanding compared to contemporary psychiatry or physiology. Ayurveda emphasizes self-awareness as the best method to prevent and manage

psychological disorders. Practices such as Dhi (intellect), Dhairya (courage), and Atma Vijnyana (self-knowledge) are key methods for achieving mental well-being. Additionally, many adverse effects of psychiatric medications can be effectively managed using Ayurvedic protocols, providing a holistic approach to mental healthcare.

Chapter

8

# Concepts of Malignancy in Ayurveda

In my clinical experience dealing with malignancy from an Ayurvedic perspective, the understanding of malignancy has evolved significantly over the past few decades. Unlike normal cells, cancerous cells exhibit uncontrolled growth and division. These cells display notable variations in size and shape, possess larger and darker nuclei, and have abnormally arranged chromosomes with irregular numbers.

## Definition of Tumor

The definition of a tumor has significantly evolved from what we used to study. Previously, a tumor was defined as an independent growth with an atypical arrangement, having no useful function and no termination. However, the current definition accepted by the World Health Organisation is:

"A large group of diseases that can start in almost any organ or tissue of the body when abnormal cells grow uncontrollably beyond their usual boundaries to invade adjoining parts of the body and/or spread to other organs."[1]

Nowadays, tumours are considered a large group of diseases rather than a single disease. Previously, a tumor was seen as a singular disease, but now it is recognized as a syndrome encompassing various conditions. The final diagnosis

[1] *https://www.who.int/health-topics/cancer#tab=tab_1*

or identification of any tumor or malignancy is based on microscopic findings. The pattern of changes in the cells is the key criterion for determining whether any tissue has become malignant.

The question arises whether ancient Ayurveda texts like Charaka, Sushruta, or Vagbhata mentioned the management of tumors or malignancies. It is unlikely, as there was no concept of a microscope during that time. Therefore, defining cellular pathology, the division and shapes of cells, and the specific patterns would have been impossible for Charaka or Sushruta.

However, this does not mean that malignancies did not exist during that period. The perception and clinical course of such diseases were identified, even if they were not recognized as a single disease entity or specific pathological condition. To understand how tumors were addressed, we must examine the resources and descriptions in the texts that align with the characteristics of tumors.

As per clinical findings, the majority of malignancies are identified with palpable mass lesions. In Ayurvedic texts, such palpable mass lesions that share characteristics with tumor pathology are described as "Arbuda." According to Acharya Sushruta, "Arbuda" refers to a solid, immovable, and painless growth, typically slow-growing and resulting from an imbalance of the three doshas—Vata, Pitta, and Kapha. It is considered a serious condition and is often resistant to typical Ayurvedic treatments. Sushruta outlines specific types of arbuda, their characteristics, and potential treatment approaches, highlighting the ancient understanding of such pathological conditions.

गात्रप्रदेशे क्वचिदेव दोषाः सम्मूर्च्छिता मांसमभिप्रदूष्य ।
वृत्तं स्थिरं मन्दरुजं महान्तमनल्पमूलं चिरवृद्ध्यपाकम् ।।
कुर्वन्ति मांसोपचयं तु शोफं तमर्बुदं शास्त्रविदो वदन्ति । (Su. Ni. 11/14)

The clinical signs are- a palpable mass which could be having its specified border

- Sthiram- firm swelling
- Mandarujam- relatively painless
- Mahantam- a huge swelling
- Analpamoolam- its indurated base is deeper than what you see
- Chira vriddhi- which tends to take a long time for suppuration or progression, which is slow growing
- Apakam- doesn’t undergo suppuration

The most important characteristics are the- non-suppurative lesion (where Paka doesn't occur) and firm swelling. The reason given by Acharya Sushruta is:

न पाकमायान्ति कफाधिकत्वान्मेदोबहुत्वाच्च विशेषतस्तु ।
दोषस्थिरत्वाद्ग्रथनाच्च तेषां सर्वार्बुदान्येव निसर्गतस्तु ।। (Su. Ni11/21)

In Ayurveda, the pathogenesis of arbuda (tumor) involves two key forms: "Dosha sthiratvaat" (stability of doshas) and "Dosha grathana" (solidification of doshas). Understanding the basis of vyadhi (disease) involves the concept of "dosha dushya sammurchana," which is the combination of doshas and dushyas, necessary for disease manifestation.

However, in the context of arbuda, the definition extends beyond sammurchana. It involves sthiratva and doshagrathana, suggesting a continuous pathological process without termination. This aligns with the modern definition of tumors, which are characterized by uncontrolled and indefinite growth.

Arbuda can be considered as a specific subset of malignant lesions. Certain types of arbuda mentioned in Ayurvedic texts, like Shonitarbuda, exhibit features typical of malignant pathology. For instance, Shonitarbuda is characterized by fragile tissues that bleed easily, akin to tumors that are prone to bleeding upon touch. This resemblance highlights the Ayurvedic understanding of certain tumor characteristics long before the advent of modern pathology.

कृष्णौः स्फोटैः सरक्तैश्च पिडकाभिश्च पीडितम् ।
यस्य वस्तु रुजश्चोग्रा ज्ञेयं तच्छोणितार्बुदम् ।।
मांसदोषेण जानीयादर्बुदं मांससम्भवम् । (Su. Ni. 14/13)

The typical feature of a Mamsarbuda is a surface that is fimbriated or finger-like. In the case of a Talu arbuda, the surface has a fimbriated and soft, fragile appearance, resembling the petals of a lotus (padmakara), indicating an irregular surface. These are the typical characteristics of neoplastic mass lesions, and they are mentioned in Sushruta Samhita.

So, palpable neoplastic conditions, whether benign or malignant, are considered arbuda when they appear on the surface of the body (gatra pradesha). However, certain conditions involve masses that are not on the body surface but can be palpated within the abdomen. These abdominal masses, referred to as gulma, may also be considered a variety of neoplastic conditions.

## Visceral mass lesion - Gulma:

हृद्वस्त्योरन्तरे ग्रन्थिः सञ्चारी यदि वाऽचलः ।
चयापचयवान् वृत्तः स गुल्म इति कीर्तितः ।। (Su.Ut. 42/4)

Gulma is typically located in the abdomen and is characterized by its movable nature. Some types of gulma can resemble malignant lesions, presenting with systemic symptoms in the patient.

Another manifestation of tumor pathology or malignant conditions includes obstructions in passages such as oesophageal malignancies causing swallowing difficulties, or prostate pathologies leading to urethral obstruction, and blockages in the common bile duct, among others. Similar obstructive diseases are described in the Sushruta Samhita under different names like Balasa and Valaya.

Balasa is a situation where the annagati (the movement of the food) is affected and there is a circular swelling around the area.

बलास एवायतमुन्नतं च शोफं करोत्यन्नगतिं निवार्य ।
तं सर्वथैवाप्रतिवारवीर्यं विवर्जनीयं वलयं वदन्ति । (Su. Ut. 16/5)

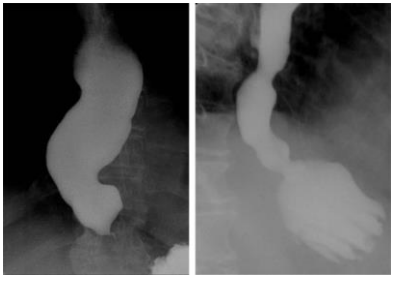

*Fig. Barium swallow images showing affected movement of the food*

When a patient experiences difficulty in swallowing along with a circular swelling, the condition can be diagnosed as Balasa. Valaya, on the other hand, refers to an annular or circular lesion specifically found in the oesophagus.

## Mutraashthila or Mutra granthi:

Similarly, the obstructive pathologies in the urinary tract are also mentioned like the Mutraashtila or Mutra granthi.

Mutraashtila is where a palpable hard mass is present per rectum.

शकृन्मार्गस्य बस्तेश्च वायुरन्तरमाश्रितः।
अष्ठीलावद्घनं ग्रन्थिं करोत्यचलमुन्नतम्।।
विण्मूत्रानिलसङ्गश्च तत्राध्मानं च जायते।
वेदना च परा बस्तौ वाताष्ठीलेति तां विदुः। (Su. Ut. 58/7,8)

The mass is palpated between the rectal and the urinary tract which is stone like, that is obviously indicative of the prostatic pathologies.

Mutra granthi is again a palpable mass but the difference is that the condition is painful.

अभ्यन्तरे बस्तिमुखे वृत्तोऽल्पः स्थिर एव च।
वेदनावानति सदा मूत्रमार्गनिरोधनः।।
जायते सहसा यस्य ग्रन्थिरश्मरिलक्षणः।
स मूत्रग्रन्थिरित्येवमुच्यते वेदनादिभिः।। (Su. Ut. 58/18,19)

## Ulcerative lesions

अतिसंवृतो अतिविवृतो अतिशीतोऽत्युष्णो कृष्ण रक्त पीत शुक्लादीनां वर्णानामन्यतमः भैरवः पूतिपूयमांससिरास्नायु प्रभृतिभिः पूर्णः पूतिपूयास्रावी उत्सङ्गी अमनोज्ञदर्शनगन्धः अत्यर्थं वेदनावान् दाहपाकरागकण्डूशोफपिडकोपद्रुतः अत्यर्थं दुष्टशोणितास्रावी दीर्घकालानुबन्धी चेति दुष्ट व्रणलिङ्गानि।(Su.Su.22/7)

Ulcerative lesions are another representation of the malignant pathologies. It can be present over the surface of the body or it could be anywhere, like in the stomach etc. Sushruta has described the varieties of the Dushta Vrana, which could be suggestive of the malignant changes.

A wound which has a wide surface and continues to grow wider.

- Bhairava- itself looks unappealing,
- Amanojna darshana - looks very wacky and suggestive of a possibility of the tumor
- Utsangi- surface could be raised with multiple tracts or induration
- Deerghakalanubandhi - which tends to persist towards chronicity.

These could also be considered as evidence of arbuda. For instance, when faced with a very chronic non-healing ulcer, such as Marjolin's ulcer or basal cell carcinoma, clinical suspicion is based on these features. From an Ayurvedic perspective, it is crucial to focus on the clinical presentation rather than the

underlying pathology. Systemic symptoms of malignancy are also described in Sushruta Samhita under specific conditions like Raktarbuda.
In Raktarbuda, characteristic clinical symptoms include -

दोषः प्रदुष्टो रुधिरं सिरास्तु सम्पीड्य सङ्कोच्य गतस्त्वपाकम्।।
सास्रावमुन्नह्यति मांसपिण्डं मांसाङ्कुरैराचितमाशुवृद्धिम्।
स्रवत्यजस्रं रुधिरं प्रदुष्टमसाध्यमेतद्रुधिरात्मकं स्यात्।।
रक्तक्षयोपद्रवपीडितत्वात् पाण्डुर्भवेत् सोऽर्बुदपीडितस्तु। (Su.Ni. 1/15,16,17)

Because of the lesion present in the area, the patient exhibits Raktakshaya lakshana, or anemic features, and there can also be persistent bleeding. These are exact clinical descriptions of surface tumor pathology. These conditions can be identified as malignant lesions based on the clinical features evident as localized malignancy. However, certain malignancy conditions are systemic, like leukemia, and Acharya Sushruta did not categorize these as arbuda.

Features of leukemia-like conditions can be observed in the description of pandu, particularly among the asadhya (incurable) signs of pandu. For instance, in chronic and resistant cases, systemic symptoms like digdhangah (discoloration of the body), chhardi (vomiting), murccha (fainting), and trisharditah (severe thirst) are considered asadhya lakshana (incurable symptoms) of pandu. Therefore, a patient with leukemia presenting with these clinical features may be considered as having a form of pandu, which can be categorized as either asadhya (incurable) or sadhya (curable), depending on the specific circumstances.

## Dhatugata Jwara

Some of the leukemic features are also could be seen in Dhatugata jwara.

रक्तोष्णाः पिडकास्तृष्णा सरक्तं ष्ठीवनं मुहुः।
दाहरागभ्रममदप्रलापा रक्तसंस्थिते।।
अन्तर्दाहः सतृण्मोहः सग्लानिः सृष्टविड्भता।
दौर्गन्ध्यं गात्रविक्षेपो ज्वरे मांसस्थिते भवेत्।।
स्वेदस्तीव्रा पिपासा च प्रलापो वम्यभीक्ष्णशः।
स्वगन्धस्यासहत्वं च मेदःस्थे ग्लान्यरोचकौ।।
विरेकवमने चोभे सास्थिभेदं प्रकूजनम्।
विक्षेपणं च गात्राणां श्वासश्चास्थिगते ज्वरे।।
हिक्का श्वासस्तथा कासस्तमसश्चातिदर्शनम्।
मर्मच्छेदो बहिः शैत्यं दाहोऽन्तश्चैव मज्जगे।।
शुक्रस्थानगतः शुक्रमोक्षं कृत्वा विनाश्य च। (Ch.Chi.3/ 77 -81)

The patient has persistent fever, sweating and loss of weight. Antardaha refers to a condition where the core temperature of the body is elevated, but the surface body temperature is not significantly raised. This condition is accompanied by multiple systemic symptoms, including marmaccheda, which means impaired consciousness. These are typical features of dhatugata jwara, a type of fever described in Ayurveda. Depending on the presentation, dhatugata jwara can be classified as either uttana dhatugata jwara (superficial) or gambheera dhatugata jwara (deep-seated). The majority of leukemia cases are diagnosed as gambheera dhatugata jwara due to their deep-seated and severe nature.

## Dhatu anukramana – Neoplasm

क्रमेण उपचयं प्राप्य धातूननुगतः शनैः ।
न शक्य उन्मूलयितुं वृद्धो वृक्ष इव आमयः ॥
स स्थिरत्वात् महत्वाच्च धात्वनुक्रमणेन च
निहन्त्यौषधवीर्याणि मन्त्रान् दुष्टग्रहो यथा ॥ (Su. Su. 23/15,16)

अत ऊर्ध्वं एतेषां अवदीर्णानां च
व्रणभावमापन्नानां षष्ठः क्रियाकालः । (Su.Su.21/35)

The pathogenesis where a disease does not resolve and instead progresses through a sequence of pathologies in a similar manner is described as dhatu anukramana by Acharya Charaka. Normally, a pathology either attains paka (suppuration) and terminates or results in a stigma, such as a vranavastu (ulcer). However, in dhatu anukramana, the pathology progresses in a particular tissue and further affects subsequent dhatus (tissues) of the same nature. This progression causes the disease to become incurable, which aligns with the concept of malignant pathology.

In Ayurveda, malignant pathology is often described using terms like dhatu anukramana, dosha sthiratva, and dosha grathana. Dhatu anukramana refers to the continuous pathological progression within tissues, while dosha sthiratva and dosha grathana describe the persistence and aggregation of doshas, respectively. These Ayurvedic concepts parallel the modern understanding of malignancy, where a disease persists, spreads, and invades other tissues.

Acharya Sushruta and Acharya Charaka diagnosed these conditions based on clinical parameters rather than histopathological evidence, which we now rely on through microscopic examination. While there may be gaps in the identification, nomenclature, and prognosis of lesions between ancient and

modern methods, the underlying pathological processes related to malignancy were well described in Ayurveda through these concepts.

Thus, malignant pathology in Ayurveda is identified and explained through dhatu anukramana, dosha sthiratva, and dosha grathana, reflecting a deep understanding of disease progression that is consistent with the modern understanding of malignancy.

Another evidence where the disease process may not have a termination, is mentioned by Acharya Sushruta in case of the Shashta kriyakala - the bheda kriyakala where the vrana is noticed.

अत ऊर्ध्वमेतेषामवदीर्णानां व्रणभावमापन्नानां षष्ठः क्रियाकालः । (Su.Su.21/35)

A disease may reach a process where it becomes avadeerna and it tends to disrupt or spread to other areas and it will have a vrana bhava. Vrana bhava is aadeha dharanat- i.e, the lesion will be remaining in the body as long as the person will live or it may end up with the patient. This too is evidence of the malignant pathology.

## Metastasis

यज्जायतेऽन्यत् खलु पूर्वजाते ज्ञेयं तदध्यर्बुदमर्बुदज्ञैः ।
यद्वन्द्वजातं युगपत् क्रमाद्वा द्विरर्बुदं तच्च भवेदसाध्यम् । । (Su.Ni.11/20)

In addition to this, secondary Arbudas are described in Ayurvedic texts, particularly by Acharya Sushruta, as lesions that develop due to an existing Arbuda, indicative of metastasis. Acharya Sushruta identifies two types of metastatic growths: Adhyarbuda and Dwirarbuda.

Adhyarbuda refers to a secondary mass that forms on top of an existing mass, resulting in an irregular surface. Dwirarbuda, on the other hand, occurs when a secondary mass develops in a different location, such as the axilla. These descriptions align with modern understandings of metastatic cancer, where the primary tumor spreads to other parts of the body.

Regarding management, in the case of such non-suppurative (apaki) diseases, the only viable treatment option mentioned is surgical removal (Chedana).

## Need of total excision:

अपाकेषु तु रोगेषु कठिनेषु स्थिरेषु च।।
स्नायुकोथादिषु तथा च्छेदनं प्राप्तमुच्यते। (Su.Chi.1/33,34)

It is acknowledged as an irreversible pathology, indicating the necessity for chhedana, or surgical excision, as the only feasible cure. Acharya Sushruta extensively emphasizes the significance of surgical excision for diseases characterized by firm, non-suppurative lesions, such as palpable tumors. When performing chhedana for arbuda, it is crucial to ensure complete removal of the disease. Any residual part of the lesion left behind could lead to recurrence.

सशेषदोषाणि हि योऽर्बूदानि करोति तस्याशु पुनर्भवन्ति।।
तस्मादशेषाणि समुद्धरेत्तु हन्युः सशेषाणि यथा हि वह्निः।। (Su.Chi. 8/42,43)

Acharya Sushruta recognized the potential for disease recurrence, emphasizing caution during removal procedures. If complete excision of the lesion proves challenging surgically, alternative methods like debulking therapy can be considered. Acharya Sushruta detailed that debulking could be assisted through natural agents, such as maggot formation (krimi) followed by Agni chikitsa.

अल्पावशिष्टे कृमिभक्षिते च लिखेत्ततोऽग्निं विदधीत पश्चात्। (Su.Chi.18/38)

Thus, Acharya Sushruta described the clinical course and basic clinical approach for managing malignant diseases. Unfortunately, current textbooks on the history of malignant and neoplastic lesions do not mention Acharya Sushruta's contributions.

- Hippocrates – Used the word cancer (450 – 370BC) - Tumour theory
- Galen- Used the word oncos (2nd Century), Bloodletting as a treatment
- Percivall Pott - Chimney cancer (1775)
- Rudolf Virchow – Inflammation and cancer (1863)
- Hilario De Govea – Inheritance of cancer (1896)
- SM Goldberg- Radiotherapy for cancer (1903)
- Pual Ehrlich – Immune system and cancer (1909)
- Ernst Wyden- Cigarette smoking and cancer (1960)

If you explore the history through contemporary texts, it typically begins with Hippocrates. Interestingly, even in Indian medical literature, the mention of cancer starts there. However, Acharya Sushruta and Acharya Charaka had already written about such pathologies and laid down basic clinical approaches. Their work, dating back 5000 years, provided proficient clinical

descriptions and confident management strategies, despite the absence of microscopic details due to the lack of microscope technology at that time.

Hippocrates, around 450-370 BC, used the term "cancer" due to the crab-like spreading nature of lesions, although he couldn't explain its exact pathology or cause beyond recognizing it as an incurable condition. Subsequent milestones in Western medicine included Galen introducing the term "oncos" in the second century and the standard treatment of bloodletting. Notably, from 1775 until later in the 20th century, there were limited significant advancements in tumor pathology and management.

Meanwhile, Acharya Sushruta had developed a systematic approach to treating neoplastic lesions much earlier. The theoretical study began to emerge in 1775 when Percivall Pott linked chimney sweeps' cancer to chronic inflammation. Theories about cancer progressed through the 19th and 20th centuries, with inflammation being established as a possible cause in 1863 and the discovery of genetic factors in cancer by Hilario in 1896. Radiotherapy introduced in 1903 marked a breakthrough in cancer treatment.

Advancements accelerated in the 20th century: Paul Ehrlich established the immune system's role in cancer in 1909, Ernst Wynder linked cigarette smoking to cancer in 1960, and experimental carcinogenesis became possible in laboratories from 1920 onwards. Major breakthroughs continued with the identification of viral infections in malignancies like Burkitt's lymphoma in 1964 and the discovery of genes like HER2 in 1984. By 2014, DNA analysis and initiatives like the Cancer Genome Atlas marked the forefront of cancer research and treatment.

While technology has rapidly advanced in the past two centuries, Ayurvedic texts, with their 5000-year history, continue to offer valuable insights into holistic approaches to health and disease, including tumor pathologies, despite the technological disparity.

Initially, tumor was considered to be from an unknown origin. Real reasons were not known and the theories about the carcinogenesis also are quite varying.

## Theories of Carcinogenesis:

- Genetic
- Epigenetic
- Inflammation
- Virus
- Hormonal origin

- Carcinogenesis
- Immune surveillance
- Somatic evolution (Monoclonal)

These theories have been recognized as different causes, and all of them remain valid today. None has been rendered invalid. However, the most recent theory, which holds significant validity and is regarded as a major approach to understanding malignancy, is the somatic evolution theory or monoclonal theory. This theory has substantially influenced how we manage and understand the pathology of cancer. To clarify, I would like to provide a brief overview of what the somatic evolution theory entails, as it is relevant to the approach in managing the progression of malignancies and reflects current trends in the field.

## Somatic evolution theory -1976 [Nowell]

Human tumours result from an evolutionary process operating on somatic cells within tissues, whereby natural selection operates on the phenotypic variability.

- Process of genetic instability and natural selection.
- A mutated cell may form a clone
- Natural processes selectively prevent the clone formation.

The somatic evolution theory, introduced by Nowell in 1976, posits that during the normal process of cell division, there is a potential for some cells to acquire abnormalities. Just as in a well-maintained factory where defective products are identified, separated, and removed, our physiology has mechanisms to detect and manage mutated cells. This process mirrors natural selection, where normal cells are allowed to proliferate while aberrant ones are suppressed or eliminated.

The theory suggests that as long as this balance is maintained—where abnormal cells are kept in check—the body remains healthy. However, if a mutated cell manages to evade these checks and begins uncontrolled division, it can give rise to a clone of abnormal cells, potentially leading to the development of a tumor. This concept, known as clonal theory, highlights the role of unchecked cell proliferation in the genesis of malignancies.[1]

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*1 Oota S. (2020). Somatic mutations - Evolution within the individual. Methods (San Diego, Calif.), 176, 91–98. https://doi.org/10.1016/j.ymeth.2019.11.002*

According to the clonal theory, an increased number of cell divisions theoretically correlates with a higher incidence of tumor pathology. This would suggest that larger-bodied organisms with more cell divisions, such as elephants, should exhibit a significantly higher rate of malignancies compared to smaller animals or humans. However, this expectation does not hold true in reality, a phenomenon known as Peto's paradox.

Peto's paradox highlights that despite the potential for more cell divisions and larger body sizes in certain animals, their natural mechanisms for suppressing tumor are remarkably effective. Animals living in their natural habitats, where lifestyles are more aligned with their evolutionary adaptations, show lower rates of malignancy compared to humans. Conversely, domesticated animals, whose lifestyles often deviate from their natural environments, tend to have a higher incidence of malignant lesions.

This paradox underscores the significant influence of lifestyle factors on the development of malignancies, challenging the simplistic correlation between body size, cell division rates, and tumor incidence predicted by the clonal theory.

This theory underscores the critical role of environmental factors, carcinogens, lifestyle choices, and diet alongside genetic predispositions and other pathologies such as inflammatory conditions or viral infections in the development of tumor pathology. These factors can disrupt the body's natural mechanisms for suppressing tumours or increase the likelihood of abnormal cell proliferation. Therefore, the impact of lifestyle and diet has gained significant importance in modern times for preventing tumor development. Adopting healthy lifestyles and diets that minimize exposure to carcinogens and support immune function are crucial strategies in reducing the risk of tumors.[1]

## Tumour suppression mechanisms

- Lower Somatic Mutation Rates
- Redundancy of Tumor Suppressor Genes
- More efficient immune system
- More sensitive or efficient apoptotic processes

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*[1] Tollis, M., Boddy, A. M., & Maley, C. C. (2017). Peto's Paradox: how has evolution solved the problem of cancer prevention? BMC biology, 15(1), 60. https://doi.org/10.1186/s12915-017-0401-7*

- Less Reactive Oxygen Species due to Lower Basal Metabolic Rate
- Formation of hyper tumor

Antioxidants and oxidative damage are increasingly recognized as contributors to numerous diseases. The process of oxidation produces reactive oxygen species (ROS) and their byproducts, which can harm cells and tissues. Managing these oxidative molecules with antioxidants has emerged as a promising strategy in the medical treatment of various diseases.

The immune system in a healthy individual is highly effective, capable of detecting and eliminating abnormal cells through the production of chemicals such as tumor markers or Tumor Necrotizing Factors (TNF). This robust immune response helps prevent the development of tumours. This concept aligns closely with the fundamental theory in Ayurveda that variations in doshas can lead to abnormal pathological processes occurring regularly.

विकृताविकृता देहं घ्नन्ति ते वर्तयन्ति च ।
वयोहोरात्रिभुक्तानां तेऽन्तमध्यादिगाः क्रमात् । (A.H. Su. 1/7,8)

The doshas in the body fluctuate naturally and may not always remain balanced, influenced by factors like age, time of day, and diet. However, these fluctuations do not necessarily lead to disease if one follows Swasthavritta, which includes proper Ritucharya (seasonal regimen) and Dinacharya (daily regimen). Ayurveda emphasizes that adhering to Dinacharya and Ritucharya effectively prevents the imbalances of doshas that occur daily and could otherwise lead to disease. Therefore, disease prevention in Ayurveda is primarily based on maintaining a healthy lifestyle.

शीतोद्भवं दोषचयं वसन्तेविशोधनं ग्रीष्मजमभ्रकाले ।
घनात्यये वार्षिकमाशु सम्यक् प्राप्नोति रोगानृतुजान्न जातु ।। (A.H. Su 4/35)

Shodhana according to the season has also been advised.

नित्यं हिताहारविहारसेवी समीक्ष्यकारी विषयेष्वसक्तः ।
दाता समः सत्यपरः क्षमावानाप्तोपसेवी च भवत्यरोगः ।। (A.H.Su. 4/36)

A balanced diet and activity along with a social concern is also important. To summarize, cancer ranks as the second leading cause of death globally, responsible for approximately 9.5 million deaths in 2018. It is a significant global health issue, with about 70% of cancer-related deaths occurring in low and middle-income countries. Behavioral and dietary factors contribute to about one third of these deaths, with at least 20% of malignancies attributed to risks such as high body mass index, low intake of protein and vegetables, lack of physical activity, tobacco use, and alcohol consumption. Preventive measures,

including adapting a healthy lifestyle, could potentially prevent up to 20% of cancer cases.

Infections such as hepatitis and human papillomavirus (HPV) account for about 25% of cancer cases globally. Early management of these infections, such as hepatitis B, is crucial in reducing cancer risk. The World Health Organization underscores the importance of early diagnosis for improving outcomes; unfortunately, diagnostic capabilities in low-income countries may hinder timely detection and treatment, impacting patient outcomes negatively.

The World Health Organization (WHO) has undertaken a significant project to investigate dietary practices that may influence or mitigate cancer risk. Regarding dietary causes in India, it has been noted since 1975 that there has been a decrease in cereal (grain) consumption, particularly coarse grains, although overall energy consumption has not been affected. This shift is attributed to a substantial increase in the intake of fats, animal protein, milk, and milk products.

In lower-income households in India, fats primarily come from vegetable sources, with minimal consumption of animal fats. Conversely, in higher-income households, the majority of fat intake is from animal-based sources. India, being a major producer of vegetables and fruits, exports a significant portion of its produce. Therefore, dietary factors are recognized as major contributors to disease prevalence and management in India.

These observations highlight global perceptions and prejudices about India's dietary landscape. One unfortunate perception is that India lacks a clearly identifiable national diet, despite the country's rich culinary traditions and scientific approach to food preparation, as evidenced by ancient texts like the 'Soopa Shastra'. This discrepancy persists despite Indian representation in the global bodies that compile and study such extensive dietary data.

> तत्रखल्विमान्यष्टावाहारविधिविशेषायतनानिभवन्ति;तद्यथा-
> प्रकृतिकरणसंयोगराशिदेशकालोपयोगसंस्थोपयोक्त्रष्टमानि (भवन्ति)।।
> (Ch.Vi 1/21)

> तत्रेदमाहारविधिविधानमरोगाणामातुराणां चापि केषाञ्चित् काले प्रकृत्यैव हिततमं
> भुञ्जानानां भवति- उष्णं, स्निग्धं, मात्रावत्, जीर्णे वीर्याविरुद्धम्, इष्टे देशे,
> इष्टसर्वोपकरणं, नातिद्रुतं, नातिविलम्बितम्,
> अजल्पन्, अहसन्, तन्मना भुञ्जीत,
> आत्मानमभिसमीक्ष्य सम्यक्।। (Ch.Vi .1/24)

Ayurveda emphasizes several factors to consider before food consumption, including Prakriti (nature of food), Karana (processing), Samyoga (food combinations), and Rashi (amount). It also provides detailed guidelines such as Ushnam (warmth), Snigdham (unctuousness), Matravad (quantity), Jirne (digestion), Viryaviruddham (compatiblility), and Ishte Deshe (suitable place) for optimal food choices and combinations.

The concept of 'Annakala' specifies the appropriate time for food consumption, taking into account factors like the digestive capacity during different parts of the day. These principles ensure that food is consumed in a manner that supports digestion, assimilation of nutrients, and overall health according to individual needs and circumstances, as outlined in Ayurvedic texts.

प्रसृष्टे विण्मूत्रे हृदि सुविमले दोषे स्वपथगे
विशुद्धे चोद्गारे क्षुदुपगमने वातेऽनुसरति।
तथाऽग्नावुद्रिक्ते विशदकरणे देहे च सुलघौ
प्रयुञ्जीताहारं विधिनियमितं, कालः स हि मतः।। (A.H.Su. 8/55)

This kind of standard description can never be seen anywhere in the world. In summary, to prevent cancer, it is important to maintain a healthy weight through regular physical activity and exercise, reducing dependency on machines. A diet rich in vegetables and fruits should be prioritized, while consumption of fast food and processed foods should be limited. Red and processed meats, sugar, sweetened drinks, aerated beverages, and alcohol should also be consumed in moderation. Additionally, excessive use of supplements should be avoided. These lifestyle choices can significantly contribute to reducing the risk of cancer. [1]

India ranks sixth on the list of countries with projected physical inactivity by 2020, according to the WHO report. This indicates a significant challenge in terms of insufficient physical activity levels among its population compared to other countries globally.

## Therapeutic options

- Surgery
- Radiation therapy
- Chemotherapy
- Targeted therapy

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*1https://www.wcrf.org/diet-activity-and-cancer/cancer-prevention-recommendations/do-not-use-supplements-for-cancer-prevention/( Accessed on 16/04/2024)*

- Hormone therapy
- Stem cell transplant
- Precision medicine

Surgery, historically the oldest method of treatment, has seen its relative importance diminish in modern times with the advent of new methods for destroying cancer cells. Radiation therapy, chemotherapy, targeted therapy, hormone therapy, stem cell transplantation, and precision medicine—where specific cancer cells can be targeted—are now gaining prominence alongside surgery.

My approach to the clinical management of malignancy is based upon our basic guidelines. I will dedicate myself to understanding the disease thoroughly while striving to minimize pain and other complications, thereby reducing the patient's suffering. The primary goal is not just to extend the patient's life, but to enhance their quality of life as well.

Since 2006, my clinical practice has been primarily digital, and according to my records, I have treated approximately 10,500 patients with various forms of malignancy. Over this period, there have been approximately 20,000 follow-up visits. My experience spans across different categories of malignancies, with a significant number of patients in terminal stages. Additionally, I frequently see patients undergoing chemotherapy or radiation therapy who seek additional relief from symptoms through my treatments. There are also patients diagnosed with malignancies who opt not to undergo conventional therapies, forming another segment of my practice.

My approach to these patients is strategic and tailored to individual conditions rather than applying a one-size-fits-all principle. For terminally ill patients, my focus is on enhancing their quality of life. For instance, if a patient is bedridden with significant bed sores, my approach would involve cleaning and treating the bed sores to alleviate discomfort. In cases of severe emaciation, I may use Rasayana chikitsa such as basti to improve the patient's overall condition. I do not adhere to a rigid standard approach; instead, my strategies are dictated by the specific needs and conditions of each patient.

In cases where patients discontinue conventional therapy, I approach with caution. If their condition shows potential for cure and better outcomes through conventional treatment, I encourage them to continue while integrating

Ayurvedic treatment as supportive care. Being a successful Ayurvedic practitioner requires understanding both the strengths and limitations of modern medicine.

In various situations, I commonly prescribe Arogyavardhini Rasa and Kumaryasava to maintain Dhatwagni. I often include Kanchanara Guggulu as well. Additional prescriptions depend on the specific Dosha-dushya imbalance. For instance, if a patient has impaired appetite, I might add Agnitundi Vati, or if they are emaciated, Ashwagandha might be included.

For managing pain, I prefer Niruha basti, whereas Yapana basti is preferred for emaciated patients. Each treatment plan is personalized based on the individual's Dosha conditions.

When patients diagnosed with malignancy decline conventional therapy, I conduct thorough evaluations before counselling them. If conventional therapy offers a strong likelihood of success and is financially feasible, I recommend it over Ayurvedic treatment alone. However, if conventional options are limited and outcomes are poor, I discuss alternative treatment approaches with the patient.

One of the drugs I used in my clinical practice in the 1980s was Bhallataka, either in the form of Bhallataka ksheerapaka or Bhallataka leha. Initially, Bhallataka showed promising changes in the course of some malignant conditions, resulting in slight regression. However, I observed that later on, it led to complications such as bone marrow depression. As a result, I have not used Bhallataka in my practice for the past 15 to 20 years. Similarly, Rasamanikya was another drug I used earlier. However, it proved to be unreliable as it caused side effects like hepatotoxicity. While Rasamanikya showed some improvement in conditions resembling leukemia initially, these improvements were not sustained over time.

## Surgery and Kanchanara Guggulu

I have performed approximately 107 surgeries for various malignancies, with major procedures including mastectomy and prostate cancer surgeries. As part of long-term treatment to prevent recurrence, I have consistently prescribed Kanchanara Guggulu, Kumaryasava, and Arogyavardhini Rasa. Here are the recurrence rates observed: about two patients experienced recurrence within a year, 36 patients between 1 to 5 years, and six patients after five years.

Remarkably, 26 patients did not experience recurrence even after seven years. While this regimen may not constitute a standardized protocol, it has certainly contributed to extending life expectancy and improving quality of life.

In terms of palliative care for terminally ill patients, I employ specific treatments:

- Niruha basti for pain management
- Arogyavardhini Rasa, Kumaryasava, and occasionally Agnitundi Vati for symptoms resembling dyspepsia
- Ashwagandha for managing cachexia
- Mrityunjaya Rasa and Amritarishta for tumor necrosis pyrexia
- Ekangaveera Rasa and Abhraka Bhasma for neurological lesions
- Punarnava Mandoora and Draksharishta for anemia

These treatments are tailored to address various symptoms and complications associated with malignancies, aiming to improve overall comfort and well-being during treatment or palliative care.

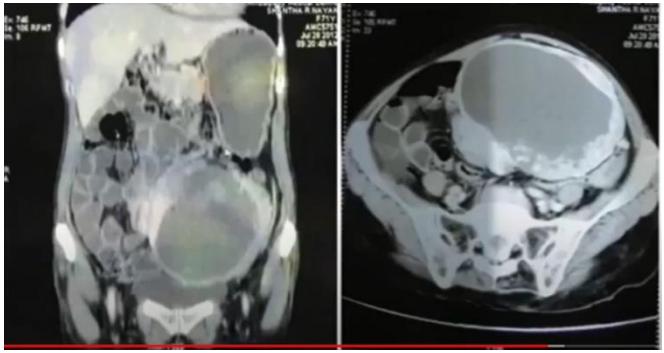
## Case presentation:

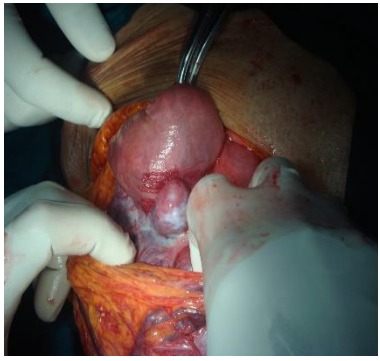
Mrs. XXX, aged 72, initially diagnosed with jejunal tumor and recommended for jejunostomy, presented with signs of intestinal obstruction at KMC Manipal, Karnataka. Upon admission under my care in 2012, she exhibited a palpable mass causing total intestinal obstruction, necessitating parenteral management. With enterostomy as the remaining option, I initiated Dashamoola Niruha Basti treatment.

During clinical examination, I observed that palpating the tumor mass could temporarily relieve the obstruction, allowing for bowel movements. Continual manipulation of the mass during daily examinations gradually reduced the need for parenteral nutrition, and within five days, oral feedings became feasible. The obstruction was partially relieved through manual manipulation.

Despite initial reluctance for surgery, I convinced Mrs. XXX to undergo laparotomy instead of enterostomy. The CT scan indicated a substantial tumor measuring 6 to 8 inches in diameter. During surgery, rather than excising the tumor, I created a small peritoneal pouch to stabilize its position, ensuring normal bowel function without directly manipulating the tumor. Remarkably, Mrs. XXX experienced good recovery and survived for approximately three years post-surgery.

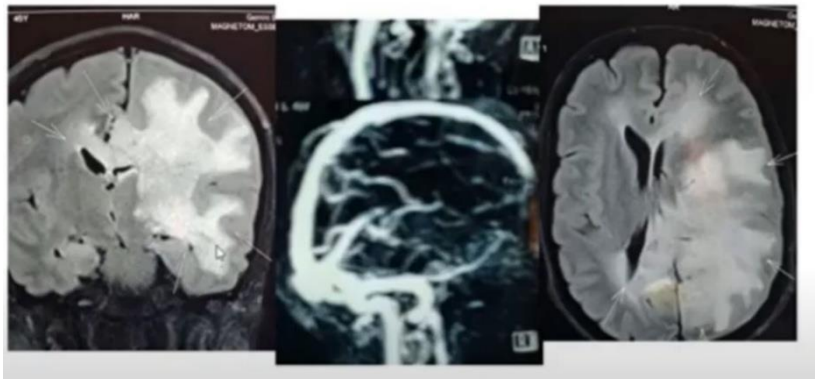
In the postoperative period, Mrs. XXX received Kanchanara Guggulu, Arogyavardhini Rasa, and Kumaryasava, supplemented with occasional blood transfusions as needed. Her quality of life significantly improved, and the average cost of treatment was approximately seven rupees per day. In contrast, standard medical treatment involving radical excision followed by imatinib would have extended her life expectancy by 10 to 12 months on average, at a significantly higher cost—approximately 200 times more due to the expensive nature of imatinib treatment.





In 2015, I encountered a challenging case involving a 20-year-old patient diagnosed with an anaplastic astrocytoma, WHO grade 3, a large brain tumor occupying nearly half of the cerebral hemisphere. The patient had undergone extensive treatment elsewhere with poor outcomes, and was expected to survive only about one month. Upon arrival at our hospital, the patient was severely emaciated, experiencing persistent status epilepticus-like conditions, and had multiple bedsores. His mother, around 50 years old, was dedicated to caring for him, with her sole wish being that her son recognizes her and call her "Amma" (Mother) before his passing.

Given the dire prognosis, our treatment focus shifted towards palliative care and improving the patient's quality of life. We addressed the numerous bedsores with meticulous dressing, managed electrolyte imbalances, and employed various supportive measures. Through these efforts, we were able to achieve a state where the patient became semi-conscious and could indeed recognize his mother and address her as "Amma." Unfortunately, despite this emotional connection being fulfilled, the patient's condition deteriorated further, and he passed away within a few weeks.



Of course, we tried all possible methods, as there was no standard protocol of treatment. We did the dressing of the bedsores, about 30 of them over the body. His electrolyte imbalances were managed. Somehow, we could achieve the situation where the patient became semi-conscious and could be able to identify his mother. Within two or three weeks after that, he developed some more complications and died. When I quote these two cases, I stress that Ayurvedic treatment cannot cure malignancy, but my experience with malignant patients is that we can definitely help improve the quality of life of the patient. Elaborate studies should be conducted to explore the preventive and palliative value of Ayurvedic treatment in malignancies for the sake of humanity. To conclude, the information about tumor in Ayurveda has not received the global recognition. Prevention of the disease by following the guidelines of healthy living needs to be highlighted and it requires a focused attention and they represent our area of strength - prevention and palliative care.

Chapter

9

# Rationality of Ayurvedic Prescriptions

The evolution of Ayurvedic pharmaceutics involves two key components, Roga (disease) and Aushadha (medicine). According to Acharya Charaka, the disease should be examined first, followed by consideration of the appropriate medicine. Classical Ayurvedic treatment involves a detailed clinical examination of the patient and the preparation of medicine tailored to the patient's specific needs. This principle is consistently applied in the Charaka Samhita, where many prescriptions utilize groups of drugs such as Dashemani Gana and Pancha Shata Kashaya.

The Charaka Samhita contains relatively few disease-specific formulations (yogas). Instead, it offers a wide range of drug groups from which specific drugs are selected based on the patient's condition. However, in the texts written after the Charaka period, such as Ashtanga Hridaya and Ashtanga Sangraha, the number of disease-specific yogas increased, while the reliance on drug groups (ganas) slightly decreased. These later texts provide more formulations targeted at specific diseases.

In subsequent Ayurvedic literature, such as 'Sahasra Yoga' and the Sharangdhara Samhita, there is a marked increase in the number of specific yogas, with over a thousand formulations described in some texts. Additionally, the practice evolved to include Rasa Shastra, introducing Rasa aushadhis (herbo-mineral preparations). There is a general perception that Rasa aushadhis are very target-oriented and disease-specific.

However, my perspective differs. I view Rasa aushadhi as potent herbal medicines that can produce disease-specific or Dosha-specific actions, depending on how they are integrated into the treatment. Thus, Rasa aushadhi should be assessed according to the principles of Dosha, Dushya (affected tissues), and Kalpana (formulation) to ensure their effective and appropriate use in Ayurvedic practice.

Beginners starting out in Ayurveda often face confusion regarding the multitude of available treatments. Ayurvedic physicians in the early stages of their practice are presented with a vast array of options, including patented drugs, classical standard book preparations as suggested by the AYUSH Ministry (such as the 277 essential drugs), Anubhoota Yoga (empirical formulations), Eka Mulika Prayoga (single herb usage), and the notion that almost everything can be medicine. This plethora of choices can naturally lead to uncertainty about which medicines to prescribe.

In my own practice, I mitigate this confusion by limiting my prescriptions to around 30 to 40 drugs. By focusing on a smaller, well-understood selection of medicines, I am able to apply treatments more confidently and effectively. This approach allows for a deeper understanding of each drug's properties and effects, leading to better patient outcomes and a more streamlined practice.

Most of the time, my understanding of the Dosha effects is derived from textual combinations. Occasionally, my approach may differ slightly because when dealing with multiple drugs, it might not always be possible to rely solely on textual information. In such cases, I make decisions based on clinical observations and patient responses. This combination of textual knowledge and clinical experience ensures a more tailored and effective treatment for each patient.

## Agnitundi Vati:

शुद्धसूतं विषं गन्धमजमोदा फलत्रयम्।
स्वज्जिक्षारं यवक्षारं वह्निसैन्धवजीरकम्।।

सौवर्चलं विडङ्गानि सामुद्रं टङ्कणं समम्।
विषमुष्टिः सर्वतुल्यं जम्बीराम्लेन मर्दयेत्।।
मरिचाभां वटीं खादेदग्निमान्द्यप्रशान्तये।।
(Bhaisajyaratanavali, Agnimandyaadi Rogaadhikaara; 117-118)

Agnitundi Vati is one of the drugs I frequently prescribe. Its key ingredients include Kshara, Lavana, and Vishamushti. For each combination, I assess the Dosha and Dushya effects, either based on classical Ayurvedic texts and the Kashtha Aushadhis present in the formulation or on our clinical experience as we administer the drug to patients.

Agnitundi Vati, based on its ingredients, is predominantly effective for Kapha Vataja Vyadhi and Kapha avrita Vata. The signs of Kaphavrita Vata include Shaitya (coldness), Gaurava (heaviness), and Shoola (pain), with patients often preferring warmth and bitter tastes. In such conditions, Agnitundi Vati is indicated.

There is a general perception that Agnitundi Vati is limited to gastrointestinal tract pathologies or specific Srotas. However, I do not restrict any Dravyas to particular Srotas. While there is typically a preference for Annavaha Srotas, it is not necessary to limit its use. In any acute colicky pain condition where the patient prefers warmth, Agnitundi Vati can be effectively used alongside other treatments. This broader application underscores its versatility in managing a range of conditions beyond the gastrointestinal tract.

Agnitundi Vati can produce significant changes in clinical outcomes without being restricted by the location or status of the pathology. My preference for Agnitundi Vati in painful conditions depends on the availability of other treatment options. For instance, Agnitundi Vati may not be my first choice for purely muscular pain. However, if a patient presents with both muscular pain and gastrointestinal tract pathology, Agnitundi Vati becomes preferable as it addresses both issues simultaneously. This approach helps limit the number of drugs prescribed.

For example, if a patient has indigestion accompanied by abdominal pain and muscular pain due to injury or swelling, I would not prescribe separate medicines for each condition. Instead, I would choose Agnitundi Vati, which can effectively manage all symptoms. This method of prescribing fewer, multifunctional medicines maintains the unique identity of Ayurvedic practice, distinguishing it from other medical approaches that often involve multiple medications for different symptoms.

Medical practices often specialize, leading patients to receive multiple prescriptions from different specialists. For example, a patient might get an anti-

spasmodic from one doctor, an analgesic from an orthopaedic specialist, and so on. This is something we typically criticize. Instead, our Ayurvedic prescriptions should avoid this pattern. In many cases, a single prescription can address multiple issues.

For instance, my approach to prescribing Agnitundi Vati is based on symptoms rather than strictly adhering to specific diagnoses. Whether the patient has gastrointestinal issues or muscular pain, Agnitundi Vati can be effective if the symptoms align. This strategy helps minimize the number of prescriptions.

While diagnoses provide valuable information about prognosis, potential complications, and the course of the disease, they should not dominate the choice of medication. For instance, in treating gastritis, I consider endoscopic findings and other investigation reports, but they serve as background information rather than primary factors in selecting the drug. This holistic approach ensures that our prescriptions are streamlined and effective across multiple symptoms.

In cases of renal colic, Agnitundi Vati is my first choice of drug. This underscores that the suggestion of a drug is not limited to Annavah Srotas (gastrointestinal tract).

The same principle applies when treating gastrointestinal tract pathology with Kaphavritta Vata Lakshana. If the patient prefers warm food or finds relief after taking Shunthi (ginger) or soda, then Agnitundi Vati is indicated. On the other hand, if a patient feels better after consuming milk or other cool substances (sheeta), then Sootashekhara Rasa would be the preferred choice.

As Ayurvedic physicians, we can make specific findings and distinctions within the same category of diseases. Although these conditions fall within the same category, the prescriptions may vary significantly, underscoring the rationality of our approach.
Let's discuss the group of disease conditions for which I prescribe Agnitundi Vati. This drug is often used for conditions involving Kapha Vataja Vyadhi and Kapha avrita Vata, characterized by symptoms such as coldness, heaviness, and pain, where the patient prefers warmth and bitter tastes.

Regarding adverse effects, they are rare but can occur, particularly in patients with Pitta Prakriti. In these individuals, hypersensitive rashes may develop.

While Agnitundi Vati is not contraindicated for Pitta Prakriti patients, I usually administer it for four days initially. After observing the results, I may continue the treatment if no adverse reactions are noted. Many Pitta Prakriti patients can tolerate Agnitundi Vati for extended durations without harmful effects.

Since hypersensitive rashes typically appear within three to four days, I start with a short duration of Agnitundi Vati. Depending on the patient's response, it can be prescribed for up to a week initially. The long-term prescription is then determined with safety in mind, ensuring the patient's condition is closely monitored to avoid any adverse effects.

**Key points:**
Dosha-Kapha Vata, Dhatu -Rasa, Rakta, and Karma -Deepana, Srotas-Annavaha. Agnitundi Vati is generally indicated for Kaphavruta Vata and is used in clinical conditions such as chronic gastritis, hepatitis, pancreatitis, and renal calculi with hydronephrosis. While it is effective in these conditions, a rare adverse effect associated with its use is hypersensitive rashes, particularly in patients with Pitta Prakriti. These rashes typically appear within three to four days of starting the treatment.

## Anandabhairava Rasa –

हिंगुलञ्च विषं व्योषं मरिचं टङ्कणं कणा।
जातीकोषसमं चूर्णं जम्बीरद्रवमर्दितम्।
रक्तिमानां वटीं कुर्यात् खादेदार्द्रकसंयुताम्।।

वटीद्वयं त्रयं वाऽपि संन्निपाते सुदारुणे।
ज्वरमष्टविधं हन्ति तथाऽतीसारनाशनः।।

जीर्णज्वरहरश्चैव तथा सर्वाङ्गभेदकः।
आमवातादिरोगान् च नाशयेदविकल्पतः।।
Rasendrasara Sangraha, Jvaradhikara, 103-105

**Key Contents:**

- Maricha
- Jatipatra
- Tankana

The textual indications for Anandabhairava Rasa are Jwara (fever), Kasa (cough), and Ajeerna (indigestion). However, I prescribe it for conditions characterized by Kaphavata dushti and predominant ama lakshana. Agnitundi Vati is more

oriented towards Deepana karma (enhancing digestive fire), while Anandabhairava Rasa has a stronger focus on Pachana karma (digesting toxins).

Anandabhairava Rasa is appropriate when there are ama lakshana and more discharge or signs of sama Vata. It is indicated for patients experiencing feelings of heaviness, reduced motility in the gastrointestinal tract, and sensations of Snigdhata (oiliness). Many patients report symptoms like increased oral discharge or a sensation of oiliness. Anandabhairava Rasa is suitable for cases with shaitya (coldness), arochaka, shopha (swelling), including endoscopic findings suggesting proctitis or significant inflammation, where the patient prefers warmth. It is also indicated for conditions like diarrhea, dysentery with discharge, or excessive salivation.

On the other hand, Agnitundi Vati is prescribed for patients without these symptoms. It is more focused on enhancing digestive fire and is less suited for conditions with significant ama or discharge.

In cases where symptoms overlap, both Anandabhairava Rasa and Agnitundi Vati may be prescribed together to address the multiple aspects of the patient's condition effectively.

**Key Points:**
Include Dosha-Kapha Vata, Dhatu-Rasa, Agnivardhaka, Amapachaka, Srotas-Annavaha. Anandabhairava Rasa has specific indications for Sama Vata and is used in clinical conditions such as various forms of colitis, malabsorption, and chronic appendicitis. Rare adverse effects associated with it include mouth ulcers.

This is the advantage of Ayurvedic prescriptions. You can prescribe medicines together at lower doses, such as one tablet twice a day, and combine two different drugs. This approach is beneficial for cases where targeting a specific issue is challenging, allowing for a broader treatment strategy. It also simplifies the clinical assessment process.

In certain cases, if there is some uncertainty, you have the option to review your approach after a short period, as this will not cause any harm. Occasionally, you might prescribe a medication for one week. After this period, when the patient provides feedback, you can decide whether a change in prescription is needed, such as switching from Agnitundi Vati to Anandabhairava Rasa. Using this

method, we can accurately assess and treat approximately 75% of patients. The issue is that frequently rely on shortcuts. I am not saying that we shouldn't use shortcuts—I do use them in my practice—but the shortcuts I have developed are based on the fundamental principle of assessing the Dosha Lakshana of the patient. Ultimately, when we prescribe medicines, it is based on the Dosha Lakshana.

One area where we have seen significant success is in reducing the incidence of surgery in appendicitis. The number of patients requiring surgery has significantly decreased in my group of patients. This success is due to the use of Anandabhairava Rasa and Agnitundi Vati. I often prescribe both of these drugs together in cases of appendicitis because they address both shopha (swelling) and adhmana (distension). This combination has become a common prescription for appendicitis in my practice.

In cases of malabsorption and various types of colitis, Anandabhairava Rasa can be effectively prescribed. There's no need to worry about protozoa and bacteria as Anandabhairava Rasa will definitely produce results. The only differences may lie in the treatment duration and potential complications. Thus, the core idea behind the prescription is based on Dosha and Dushya Lakshana.

## Arogyavardhini Rasa-

रसगन्धकलोहाभ्रशुल्बभस्म समांशकम्।
त्रिफला द्विगुणा प्रोक्ता त्रिगुणञ्च शिलाजतु।।

चतुर्गुणं पुरं शुद्धं चित्रमूलं च तत्समम्।
तिक्ता सर्वसमा ज्ञेया सर्वं सञ्चूर्ण्य यत्नतः।।

निम्बवृक्षदलाम्भोभिर्मर्दयेद्विदिनावधि।
ततश्च वटिका कार्या राजकोलफलोपमा।।

मण्डलं सेविता सैषा हन्ति कुष्ठान्यशेषतः।
तपित्तकफोद्भूताञ्ज्वरान्नानाप्रकारजान्।।

देया पञ्चदिने जाते ज्वरे रोगे वटी शुभा।
पाचनी दीपनी पथ्या हृद्या मेदोविनाशिनी।।

मलशुद्धिकरी नित्यं दुर्धर्षक्षुत्प्रवर्तिनी।
बहुनात्र किमुक्तेन सर्वरोगेषु शस्यते।।

आरोग्यवर्धनी नाम्ना गुटिकेयं प्रकीर्तिता।
सर्वरोगप्रशमनी श्रीनागार्जुनयोगिना।।

Rasaratsasamucchaya, Visarpadichikitsa, Adhyaya 20, 106-112

**The basic key contents are**

- Tamra Bhasma
- Loha bhasma
- Abhraka Bhasma
- Katukarohini
- Nimba
- Chitrakamoola

Arogyavardhini Rasa is indicated for all varieties of Dhatvagnimandya, regardless of the system involved. It is a versatile combination that can be used for a wide range of conditions. Hence, I prescribe Arogyavardhini Rasa starting from common cold conditions to very severe conditions like malignancy.

The general perception about Arogyavardhini Rasa is that it is primarily used for hepatitis or liver disorders. However, its application is not limited to liver conditions alone. If there are indications of Pittavrita Vata conditions or Dhatvagnimandya, then Arogyavardhini Rasa is appropriate.

For Pittavrita Vata with symptoms like Adhmana (distension) and Shoola (pain), I prefer prescribing Agnitundi Vati. When there are Pittavrita Vata symptoms with increased secretion, Gandhak Rasayana is my preferred choice. In cases where there are overlapping symptoms, both drugs may be prescribed together.

**Key Points**

- Dosha- Pitta Kapha, Dhatu- Rasa, Rakta, Medas, Dhatwagni vardhaka, Mala -Pitta, Srotas-Annavaha, Raktavaha, Medovaha
- General indication- Pittavrita, Raktavrita Vata, Dhatvgnimandya

**Clinical conditions**

- Common cold, Hepatitis, Diabetes mellitus, Hypothyroidism, Allergic reactions, Psoriasis, Gall bladder disorders, portal hypertension, Malignancy
- Frequent adverse effects – Loose stools (Mild)

## Chandraprabha Vati:

चन्द्रप्रभावचामुस्ताभूनिम्बसुरदारवः ।
हरिद्रातिविषा दार्वी पिप्पलीमूलचित्रकम् ।।
तिवृद्दन्तीपत्रकश्य् त्वगेला वंशलोचना ।
प्रत्येकं कर्षमात्राणि कर्यादेतानि बुद्दिमान् ।।

धान्यकं त्रिफला चव्यं विडङ्गं गजपिप्पली।
सुवर्णमाक्षिकं व्योषं द्वौ क्षारौ लवणत्रयम्।।
एतानि टङ्कमात्राणि संगृह्णीयात्पृथक् पृथक्।
द्विकर्ष हतलौहं स्याच्चतुष्कर्षा सिता भवेत्।।
शिलाजत्वाष्टकर्षं स्यादष्टौ कर्षाश्च गिग्गुलोः।
विधिना योजितैरेतैः कर्तव्या गुटिका शुभा।।
चन्द्रप्रभेति विख्याता सर्वरोगप्राणाशिनी।
निहन्ति विंशति मेहान् कृछ्रमष्टविधं तथा।।
चतस्रश्माश्मरीस्तद्वन्मूत्राघातांस्त्रयोदश।
अण्डवृद्धिं पाण्डुरोगं कामालाश्च हलीमकम्।।
कासं श्वासं तथा कुष्टमग्निमान्द्यमरोचकम्।
वातपित्तकफव्याधीन् बल्या वृष्या रसायनी।।
समाराध्या शिवं यस्मात्प्रयत्नाद् गुडिकामिमाम्।
प्रप्तबांश्चन्द्रमा यस्मात्तस्माच्चन्द्रप्रभा स्मृता।।
Bhaishajya Ratnavali Prameha Chikitsa,59-63

Chandraprabha Vati is considered Tridoshahara, impacting Vata (3), Pitta (2), and Kapha (1) according to my clinical experience, not solely based on textual references. Its primary applications include conditions involving malas (wastes) like Mutra (urine) or Sweda (sweat). However, it is versatile and can be used in various other contexts, particularly where there is Dhatukshayajanya Vata Prakopa (aggravation of Vata due to tissue depletion).

My prescription of Chandraprabha Vati spans from treating senility in elderly patients with vague complaints to specific conditions like osteoarthritis, which I consider a result of tissue depletion. I prescribe Chandraprabha Vati for conditions such as neuritis with symptoms indicating deficiencies like calcium deficiency, menstrual irregularities, complications from statin use, diabetes mellitus, and abnormalities in spermatogenesis. These conditions are related to variants where tissue depletion symptoms are evident, and sometimes Chandraprabha Vati may be prescribed in combination with other drugs.

During the management of other diseases, if I observe symptoms of Dhatukshaya janya lakshna (tissue depletion emerging), I may introduce Chandraprabha Vati to address these specific conditions, regardless of the previous symptoms being treated.

In cases of fever or typhoid-like conditions where patients may experience deficiencies, instead of prescribing fever-reducing medications like Laxminarayana Rasa, I prefer to use Chandraprabha Vati. This approach helps manage deficiency-related complications that can arise from concurrent diseases.

The general indications for Chandraprabha Vati are quite broad, making it challenging to compile a comprehensive list. However, based on my experience, I can summarize its applications to a great extent.

## Ekangaveera Rasa:

शुद्धं गंधं मृतं सूतं कान्तं वङ्गं सनागकम्।
ताम्र चाभ्रं मृतं तीक्ष्णं नागरं मरिचं कणा।।
सर्वमेकत्र सञ्चूर्ण्य भावयेच्च पृथक्त्रयम्।
वराव्योषकनिर्गुण्डीवह्निमार्कवजैर्द्रवैः।।
शिग्रुकुष्ठद्रवेणापि मनोधात्र्या द्रवेण च।
विषमुष्ठ्यर्कहाटैश्च आर्द्रकस्य रसैस्तथा।।
रसैश्चैकाङ्गवीरोऽसौ सुसिद्धो रसराट् भवेत्।
पक्षाघातं चार्दितं च धनुर्वातं तथैव च।।
अर्धांगं गृध्रसी चापि विश्वाचीमपवाहुकम्।
सर्ववातामयान्हन्ति सत्यं सत्यं न संशयः।।
(Brihat Rasarajasundara: Page 458)

Wherever there is the involvement of Mamsa or Meda Dhatu with Vata Kapha Vyadhi and particularly Kaphavrita Vata lakshana and among them one specific lakshana is that patient would have a symptom of "हर्षः पिपीलिकानां च सञ्चार Piplika iva snachara) ....".

हर्षः पिपीलिकानां च सञ्चार इव मांसगे ।
चलः स्निग्धो मृदुः शीतः शोफोऽङ्गेष्वरुचिस्तथा ।।
आढ्यवात इति ज्ञेयः स कृच्छ्रो मेदसाऽऽवृतः।
स्पर्शमस्थ्नाऽऽवृते तूष्णं पीडनं चाभिनन्दति ।।
सम्भज्यते सीदति च सूचीभिरिव तुद्यते ।
मज्जावृते विनामः स्याज्जृम्भणं परिवेष्टनम् ।।
शूलं तु पीड्यमाने च पाणिभ्यां लभते सुखम् । (Ch. Chi 28/65,66,67)

It is fascinating how Ayurvedic texts, such as those authored by Acharya Charaka millennia ago, articulate clinical symptoms that remain relevant and identifiable today. The expression 'Piplika iva snachara....' used by Acharya Charaka to depict a sensation akin to ants crawling on the skin still resonates with patients in modern times. This continuity highlights a distinctive feature of Ayurveda: its ability to describe clinical signs and symptoms using language that directly mirrors patients' own experiences.

Wherever there are signs of Kaphavritta Vata and the patient experiences pain that is not localized to a specific area, but rather moves around (which is a characteristic of the mobile nature or chala guna of Vata seen in Kaphavritta Vata conditions), along with abnormal sensations of any kind, Ekangaveera Rasa

is my preferred prescription. It can be used in combination with other medications; for instance, in cases of neuritis, I combine it with Chandraprabha Vati. Both medicines can be administered concurrently: Chandraprabha Vati addresses issues related to tissue depletion (Dhatukshaya), while Ekangaveera Rasa addresses the Kaphavritta Vata symptoms.

The indications for Ekangaveera Rasa extend to conditions such as anemia, neuropathy, including advanced stages of neuropathy. It also shows efficacy in mechanical conditions like spinal compression and spinal canal stenosis, where it can significantly influence the outcome. It is important to note that while Ekangaveera Rasa may not cure these conditions outright, it has the potential to bring about substantial improvements in the patient's condition.

Using these medicines can offer patients significant benefits, even if complete recovery is not always achievable. For instance, if a patient can continue working with support after years of suffering, or maintain bladder function without needing a catheter, these are substantial improvements we aim for with our treatments. While perfect outcomes may not be guaranteed, our goal is to bring about changes that satisfy both the patient and our treatment objectives. Neurological deficits span a wide range of conditions, each with its specific challenges. Occasionally, minor adverse effects like a burning sensation on the body or mouth ulcers may occur. These side effects are manageable, and I often mitigate them by administering Ekangaveera Rasa alongside Avipattikara Choorna, which helps minimize such occurrences. This approach ensures that the treatment remains effective while addressing potential adverse effects for better patient comfort and compliance.

## Gandhaka Rasayana:

शुद्धो बलिर्गोपयसा विभाव्य ततश्चतुर्जात गुडूचिकाभिः ।
पथ्याक्ष धात्री औषध भृङ्गराजैर्भाव्यो अष्टवारं पृथक् आर्द्रकेण ।
शुद्धे सितां योजय तुल्यभागां रसायनं गन्धकराजसङ्ज्ञम् ।
कर्षोन्मितं सेवितमेति मर्यो वीर्यं च पुष्टिं दृढदेहवह्निम् ।
कण्डूं च कुष्ठं विषदोषमुग्रं मासद्वयेनेह जयेत्प्रयोगः ।
घोरातिसारं ग्रहणीपदं च हरेच्च रक्तं हृद्शूलयुक्तम् ।
जीर्णज्वरे मेहगणे प्रकृष्टं वातामयानां हरणे समर्थम् ।
प्रजाकरं केशमतीव कृष्णं करोति चेद्भक्षति चार्धवर्षम् ।,
Yogaratnakara Rasayanadhikara

I consider Gandhaka Rasayana to be a Tridoshahara dravya, meaning it benefits all three doshas. It is classified as a Rasayana substance and particularly

effective in conditions related to Rakta (blood), specifically those termed as shonitaja vyadhi. Gandhaka Rasayana is indicated whenever there are symptoms of skin disorders or Kushtha lakshana. It is also Vyadhipryatyanika, indicating its broad applicability in treating various diseases.

When patients present with itching followed by discharge, Gandhaka Rasayana has shown to produce positive results regardless of the underlying cause—whether it is pyoderma, taeniasis, fungus, or bacterial infections. There's a misconception among some that Gandhaka Rasayana acts like an antibiotic because of its sulphur content. However, I disagree with this comparison and critique it. Sulphur should be used directly if that's what's required; Gandhaka Rasayana, despite containing sulphur, functions differently. This misunderstanding often stems from a lack of understanding of biochemistry.

I don't prescribe Gandhaka Rasayana with the intention of using it as an antibacterial drug. Instead, I incorporate it into the treatment of my post-operative patients to support wound healing and to potentially reduce the reliance on antibiotics. In Ayurveda, Gandhaka Rasayana is not classified or used as an antibiotic because Ayurvedic principles prioritize preserving and promoting life. This perspective doesn't mean antibiotics are never warranted; they should be used judiciously when necessary and appropriate.

I utilize Gandhaka Rasayana primarily as a Rasayana formulation aimed at preventing complications associated with pitta-related discharges and inflammation, particularly in wounds. It is effective in treating a wide range of acute or chronic wounds, whether they're infectious skin lesions caused by pyogenic infections or other factors. Gandhaka Rasayana is frequently prescribed in such cases.

For patients suffering from anorectal disorders like hemorrhoids and fissures, which are often linked to Rakta dushti (blood-related issues), Gandhaka Rasayana is my preferred initial treatment of choice. Additionally, I find Gandhaka Rasayana beneficial in managing worm infestations.

The indications for Gandhaka Rasayana are diverse, and it is a formulation I frequently prescribe. Occasionally, patients may experience skin rashes as side effects, but these are typically mild and transient. If these side effects occur, discontinuing the treatment usually resolves them without causing any long-lasting complications.

## Tribhuvanakeerthi Rasa

हिङ्गुलं च विषं व्योषं टङ्कणं मागधीशिफाम्।
सञ्चूर्ण्य भावयेत् त्रिधा सुरसार्द्रकहेमभिः।।
निर्गुण्डीस्वरसेनापि रसस्त्रैलोक्यकीर्तिकः।
विनाशयेज्ज्वरान् सर्वाननुपानविशेषतः।।
(Rasamrita, Rasayogavijnaniya, Adhyaya 9; 80-81)

It primarily acts as a kaphaghna dravya, especially beneficial in conditions characterized by kaphaja jwara lakshana. In cases where there are signs of kapha aggravation, even if they are minimal, I would prescribe Tribhuvanakeerthi Rasa. Lakshanas of kapha prakopa are described in following Shloka.

गौरवं शीतमुत्क्लेशो रोमहर्षोऽतिनिद्रता।
स्रोतोरोधो रुगल्पत्वं प्रसेको मधुरास्यता।।
नात्युष्णगात्रता छर्दिरङ्गसादोऽविपाकता।
प्रतिश्यायोऽरुचिः कासः कफजेऽक्ष्णोश्च शुक्लता।। (Su Ut.29/33,34)

In cases of Kapha anubandha and kaphaja jwara, Tribhuvanakeerthi Rasa is preferred over Mrityunjaya Rasa. During the months of November and December, I often transition from prescribing Mrityunjaya Rasa and Arogyavardhini Rasa to Tribhuvanakeerthi Rasa and Arogyavardhini Rasa, especially in children experiencing respiratory symptoms due to the cooler weather. While Mrityunjaya Rasa and Arogyavardhini Rasa are typically my initial choices for prescription, the clinical manifestation of kaphadhikya lakshanas in children during these seasons may lead me to prescribe Tribhuvanakeerthi Rasa and Arogyavardhini Rasa instead.

Tribhuvanakeerthi Rasa can also be effective in conditions like febrile convulsions and gastrointestinal disorders. However, it may occasionally cause gastrointestinal irritation such as nausea and vomiting. If a child already experiences nausea and vomiting, I would avoid prescribing Tribhuvanakeerthi Rasa in such cases and opt for Mrityunjaya Rasa instead.

**Common indications of Tribhuvanakeerthi Rasa:**

- Common cold, Bronchitis, Exanthematous fever, Periodic fever, Febrile convulsions, Gastroenteritis
- Rare adverse effects – Gastrointestinal irritation

## Mrityunjaya Rasa

Based on my prescription patterns, Mrityunjaya Rasa is the most frequently prescribed drug, followed by Chandraprabha Vati in second place, and Kaishora

Guggulu in third. I view Mrityunjaya Rasa as a Tridoshara drug, and the ratio I typically use is arbitrary, focusing on Vata (2), Pitta (1), and Kapha (2).

The indications for Mrityunjaya Rasa are broad and include conditions involving Rasapradoshaja vyadhi, irrespective of the doshas. Additionally, I prescribe Mrityunjaya Rasa in cases of Ama, considering it as one of the options for Amapachana drugs.

When I refer to Ama, I am not just addressing abnormalities in Annarasa or gastrointestinal tract function. I also include abnormal biochemical reactions that lead to atypical results, such as elevated RA factor, increased uric acid levels, or raised Anti-Nuclear Antibody (ANA). My concept of Ama is expansive, and I emphasize that Ama can be objectively identified through laboratory tests. While this perspective might seem exaggerated to some, I believe it offers a practical approach to understanding and addressing health issues.

Ama can be clinically identified through biochemical markers in practice. Therefore, Mrityunjaya Rasa has a broad range of indications extending from common colds to nearly every autoimmune disorder. While it is not the sole treatment option, it remains my preferred choice in clinical practice. Its indications encompass diverse conditions characterized by symptoms of Sama Vyadhi.

> निद्रानाशो भ्रमः श्वासस्तन्द्रा सुप्ताङ्गताऽरुचिः।
> तृष्णा मोहो मदः स्तम्भो दाहः शीतं हृदि व्यथा।।
>
> पक्तिश्चिरेण दोषाणामुन्मादः श्यावदन्तता।
> रसना परुषा कृष्णा सन्धिमूर्धास्थिजा रुजः।।
>
> निर्भुग्ने कलुषे नेत्रे कर्णौ शब्दरुगन्वितौ।
> प्रलापः स्रोतसां पाकः कूजनं चेतनाच्युतिः।।
>
> स्वेदमूत्रपुरीषाणामल्पशः सुचिरात् स्रुतिः। (Su.Ut 39/35 to 38)

**General indication**

- Vatakaphaja jwara
- Amapachana
- Vishama jwara

**Clinical indication of Mrityunjaya Rasa:**
Common cold, Bronchitis, Exanthematous fever, Periodic fever, Febrile convulsions, Rheumatoid arthritis, Gout, Reactive arthritis, Autoimmune disorders.

## Shwasakuthara Rasa

## Key contents

- Manashila
- Maricha
- Trikatu

The symptoms of Kaphavrita Prana are described in following Shloka.

> श्लेष्मणा त्वावृते प्राणे सादस्तन्द्राऽरुचिर्वमिः ।
> ष्ठीवनं क्षवथुगारनिःश्वासोच्छ्वाससङ्ग्रहः ।।(A.H.Ni.16/46)

I consider Shwasakuthara Rasa as effective in balancing Kapha and Vata doshas. It is particularly beneficial in conditions of Kaphaavrita Prana, where symptoms like excessive spitting and sneezing are present. Shwasakuthara Rasa serves to mitigate doshic imbalances and treat various diseases, including complex conditions like Cor-Pulmonale.

In cases of Cor-Pulmonale, I often prescribe Shwasakuthara Rasa alongside Punarnava Mandoora to achieve more targeted therapeutic outcomes. However, it is important to note potential complications, such as skin pigmentation, which may arise if Shwasakuthara Rasa is not prepared properly due to the presence of Manashila. To mitigate this risk, I limit my sourcing of Shwasakuthara Rasa to reliable suppliers.

Interestingly, complications like skin deposition can be managed effectively with Arogyavardhini Rasa. Hence, I frequently combine Shwasakuthara Rasa with Arogyavardhini Rasa in my practice. Arogyavardhini Rasa not only addresses reduced tissue metabolism (Dhatwagni mandya) often observed in respiratory disorders (Shwasa roga) but also helps prevent cumulative toxicity from Manashila.

Overall, Shwasakuthara Rasa finds application in clinical conditions such as acute and chronic bronchitis, emphysema, and Cor-Pulmonale, where Kapha and Vata imbalances are predominant. Practitioners should remain vigilant for

potential adverse effects like skin pigmentation, hair fall, and mouth ulcers associated with its use.

## Sootashekhara Rasa

शुद्धं सूतं मृतं स्वर्ण टङ्कणं वत्सनागकम्।
व्योषमुन्मत्तबीजं च गन्धकं ताम्रभरमकम्।।

चतुर्जातं शङ्खभस्म बिल्वमज्जा कचोरकम्।
aसर्वं समं क्षिपेत्खल्वे मद्यं भृङ्गरसैर्दिनम्।।

गुञ्जामात्रां वटीं कृत्वा द्विगुञ्ज मधुसर्पिषी।
भक्षयेदम्लपित्तघ्नो वान्तिशूलामयापहः।।

पञ्च गुल्मान्पञ्च कासान्ग्रहण्यामयनाशनः।
त्रिदोषोत्थातिसारघ्नः श्वासमन्दाग्निनाशनः।।

उग्रहिक्कामुदावर्त देहयाप्यगदापहः।
मण्डलान्नात्र सन्देहः सर्वरोगहरः परः।
राजयक्ष्महरः साक्षाद्रसोऽयं सूतशेखरः।।
(Yogaratnakara, Amlapittachikitsa, Page 705)

**Key contents**

- Vatsanabha
- Tankana
- Tamrabhasma
- Chaturjata
- Bilva

Bhavana – Bhringaraja

लिङ्गं पित्तावृते दाहस्तृष्णा शूलं भ्रमस्तमः।।
कटुकोष्णाम्ललवणैर्विदाहः शीतकामता। (A.H.Ni 16/3)

In cases where Pitta aggravation coexists with Vata symptoms, and where conditions like acid reflux (Amalpitta) or Pitta dominance in Kapha disorders are observed, Sootashekhara Rasa is highly recommended. Its application extends beyond gastritis to include conditions like sinusitis, characterized by both Pitta and Kapha imbalances.

For instance, in gastritis cases, I often prescribe a combination of Agnitundi Vati and Sootashekhara Rasa. This combination addresses both the digestive fire

(Agni) aspect targeted by Agnitundi Vati and the Pitta and Kapha imbalances managed by Sootashekhara Rasa.

In cases of sinusitis, I often prescribe a combination of Sootashekhara Rasa along with Mrityunjaya Rasa. This dual therapy approach allows for a more targeted management of the dosha imbalances involved in the condition. Our prescription guidelines are fundamentally shaped by our assessment of these dosha imbalances in each patient.

Occasionally, constipation may arise as a side effect from these treatments. However, I find that it can be effectively managed with Avipattikara Choorna. As a result, I frequently combine Sootashekhara Rasa with Avipattikara Choorna in my prescriptions. While not every patient requires this specific combination, it helps enhance treatment compliance and reduces the likelihood of patient discomfort, ultimately leading to better treatment outcomes and feedback.

- General indication: Pittavruta Vata, Amlapitta
- Clinical conditions: Gastritis, Sinusitis, Food poisoning
- Adverse effect - Constipation

## Kanchanara Guggulu

**Key contents Guggulu, Triphala, Trikatu**
In cases characterized by predominance of Kapha and disorders involving the Meda and Mamsa tissues, where there are nodular swellings typically painless or with mild discomfort, and non-inflammatory characteristics, I frequently prescribe Kanchanara Guggulu. This formulation is beneficial for both malignant and benign tumors.

Specifically, conditions like chronic Galaganda (goiter), third-degree osteoarthritis where joints struggle to support the body, and situations where surgical interventions are typically recommended, Kanchanara Guggulu proves effective. While it may not induce structural improvements, it often enhances functional capabilities. Additionally, Kanchanara Guggulu is commonly prescribed for managing obesity.

## Kaishora Guggulu:

वरमहिषलोचनोदरसन्निभवर्णस्य गुग्गुलोः प्रस्थम्।
प्रक्षिप्य तोयराशौ त्रिफलाञ्च यथोक्तपरिमाणाम्। ।

द्वात्रिंशच्छिन्नरुहापलानि देयानि यत्नेन ।
विपचेत्तदप्रमत्तो दर्व्या संघट्टयन् मुहुर्यावत् ।।

अर्द्धक्षयितं तोयं जातं ज्वलनस्य सम्पर्कात् ।
अवतार्य वस्त्रपूतं पुनरपि संसाधयेदयःपात्रे ।।

सान्द्रीभूते तस्मिन्नवतार्य हिमोपलप्रख्ये ।
त्रिफलाचूर्णार्द्धपलं त्रिकटोचूर्ण षडक्षपरिमाणम् ।।

कृमिरिपुचूर्णार्द्धपलं कर्ष कर्ष त्रिवृद्दन्त्योः ।
अमृतायाः पलमेकं सर्पिश्च पलाष्टकं क्षिपेदमलम् ।।

उपयुज्य चानुपानं यूषं क्षीरं सुगन्धिसलिलञ्च ।
इच्छाहारविहारी भेषजमुपयुज्य सर्वकालमिदम् ।।

तनुरोधि वातशोणितमेकजमथ द्वन्द्वजं चिरोत्थञ्च ।
मन्दाग्निञ्च विबन्धं प्रमेहपिडकाञ्च नाशयत्याशु ।।

सततं निषेव्यमाणः कालवशाद्धन्ति सर्वगदान् ।
अभिभूय जरादोषं करोति कैशोरकं रूपम् ।।

प्रत्येकं त्रिफलाप्रस्थो जलमत्र षडाढकम् ।
पाकायत्तं फलं पाके क्वाथे पाकप्रधानता ।।
तस्मात्क्वाथविधौ नित्यं यतितव्यं चिकित्सकैः ।।

(Bhaisajyaratnavali; Vataraktadhikara; 97-105)

This is another very common prescription. I would prescribe this whenever there is Vata and Pitta involvement and particularly in Raktavruta Vata.

**Lakshnas of Raktavruta Vata**

रक्तावृते सदाहाऽर्तिस्त्वङ्मांसान्तरजा भृशम् ।।
भवेच्च रागी श्वयथुर्जायन्ते मण्डलानि च । ( A.H.Ni 16/33)

The symptoms associated with Raktavruta Vata encompass a wide spectrum, regardless of modern diagnostic categories. Whenever there are indications such as 'Sadaaha arti' (persistent burning sensation) or 'Mamsaantargata shotha' (edema within the muscles), particularly seen as extra-synovial edema in any joint, my preferred prescription is Kaishora Guggulu. This formulation is also suitable for conditions like gouty arthritis or rheumatoid arthritis, especially when there are localized inflammatory signs such as increased local temperature and tender swelling.

When the swelling becomes less tender and the signs of local inflammation diminish, but there remains intra-synovial effusion (fluid accumulation within the joint), I often prescribe Gokshuradi Guggulu along with Mrityunjaya Rasa.

This approach allows for tailoring the treatment according to the stage and status of the disease. However, it is important to note that Kaishora Guggulu and Mrityunjaya Rasa are not prescribed universally for every patient with rheumatoid arthritis but rather based on the specific dosha symptoms present.

In cases of varicose veins or vascular pathologies characterized by vascular stasis, Kaishora Guggulu is my preferred prescription. In the context of Vata Rakta, which affects all vessels without distinguishing between arterial and venous disorders as modern science does, Kaishora Guggulu is effective for both types. I have successfully treated conditions like peripheral ischemia where amputation was recommended, saving limbs by using Kaishora Guggulu. Similarly, for peripheral vascular disorders, Kaishora Guggulu is a frequent choice in my practice. I often combine it with Gandhaka Rasayana when there is a wound with discharge, or with Arogyavardhini Rasa in cases of limb emaciation. Depending on the specific clinical presentation, the combination may also include Mrityunjaya Rasa for managing local inflammatory signs. However, in cases involving vascular issues, Kaishora Guggulu remains a cornerstone of my prescriptions.

## Triphala Guggulu:

त्रिपलं त्रिफलाचूर्णं कृष्णाचूर्णं पलोन्मितम्।
गुग्गुलुं पाञ्चपलिकं क्षोदयेत् सर्वमेकतः।।

ततस्तु गुटिकां कृत्वा प्रयुञ्ज्याद् वन्यपेक्षया।
भगन्दरं गुल्मशोथावर्शासि च विनाशयेत्।।
(Sharngadhara Samhita, Madhyamakhanda, Adhyaya 7; 82-83)

Triphala Guggulu is considered tridoshahara, with my preferred emphasis on Pitta dosha at 2, Kapha dosha at 2, and Vata dosha at 1. It is particularly indicated in conditions involving Mamsa or Medas where there is accompanying inflammation. This distinguishes its use from Kanchanara Guggulu, which is prescribed when inflammation signs are minimal or absent.

When a patient presents with swelling accompanied by signs of inflammation, Triphala Guggulu becomes my preferred choice. It addresses conditions where inflammation is a notable component, leveraging its anti-inflammatory properties effectively.

In cases where there is swelling (Shopha) accompanied by a tingling sensation (Pipilika iva Sanchara), Triphala Guggulu is my preferred prescription. This

combination of symptoms indicates a specific type of Vata imbalance where Triphala Guggulu's properties are particularly beneficial.

However, in conditions where the predominant symptom is Pipilika iva Sanchara (tingling sensation) without localized swelling, Ekangaveer Rasa would be more appropriate. Ekangaveer Rasa targets Vata disorders characterized by such sensory disturbances.

Triphala Guggulu's general indications extend to various conditions including wounds, ulcers, tonsillitis, pharyngitis, and fistulas, illustrating its versatility in addressing both local and systemic issues associated with Vata and other dosha imbalances.

## Kankayana Vati:

शटी पुष्करमूलञ्च दन्ती चित्रकमाढकीम्।
शृङ्गवेरं वचाञ्चैव पलिकानि समाहरेत्।।

त्रिवृतायाः पलञ्चैकं कुर्यात् त्रीणि च हिङ्गुनः।
यवक्षारपले द्वे तु द्वे पले चाम्लवेतसात्।।

यमान्यजाजी मरिचं धान्यकञ्चेति कार्षिकम्।
उपकुञ्चजमोदाभ्यां तथा चाष्टमिकामपि।।

मातुलुङ्गरसे चैता गुडिकाः कारयेद्भिषक्।
आसाञ्चैकां पिबेद् द्वे वा तिस्रो वाथ सुखाम्बुना।।

अम्लैर्मद्यैश्च यूषैश्च घृतेन पयसाथवा।
एषा काङ्कायनोक्ता च गुडिका गुल्मनाशिनी।।

अर्शोहृद्रोगशमनी कृमीणाञ्च विनाशिनी।
गोमूत्रयुक्ता शमयेत् कफगुल्मं चिरोत्थितम्।।

क्षीरेण पित्तगुल्मञ्च मद्यैरम्लैश्च वातिकम्।
त्रिफलारसमूत्रैश्च नियच्छेत् सान्निपातिकम्।।
रक्तगुल्मे च नारीणामुष्ट्रक्षीरेण पाययेत्।।
(Bhaisajyaratnavali, Gulmadhikara; 56-62)

Kankayana Vati is specifically classified as a Pitta Kaphahara formulation, ideal for addressing conditions associated with Rakta Pitta Dushti. This includes instances of bleeding from various parts of the body, such as the nose or rectum, and particularly for bleeding hemorrhoids exhibiting symptoms of Pittaja Arsha. In cases of menstrual irregularities characterized by sporadic or moderate

bleeding, Kankayana Vati proves to be an effective choice, whereas for more severe menstrual bleeding, Chandrakala is preferred.

Beyond its application in bleeding disorders, Kankayana Vati extends its therapeutic reach to conditions like hypertension and cardiomyopathy, where Rakta Pitta Dushti plays a significant role. It is important for patients to be aware that loose stools can occasionally occur as a side effect, though this is typically not harmful and should be anticipated as part of treatment.

## Makaradhwaja

स्वर्णादष्टगुणं सूतं मर्दयेत् त्रिकगन्धकम्।
रक्तकार्पासकुसुमैः कुमार्यद्भिर्विमर्दयेत्।।
शुष्कं काचघटीरुद्धं वालुकायन्त्रगं हठात्।
पक्वं कुर्याद्रसेन्द्रं तन्नवार्ककिरणोपमम्।।
भागोऽस्य भागाश्चत्वारः कर्पूरस्य सुशोभनाः।
लवङ्गं मरिचं जातीफलं कर्पूरमात्रया।।
मेलयेद् मृगनाभिञ्च गद्याणकमितं ततः।
श्लक्ष्णपिष्टो रसो नाम जायते मकरध्वजः।।
वल्लं वल्लद्वयं वाथ ताम्बूलीदलसंयुतम्।
भक्षयेन्मधुरं स्निग्धं मृदुमांसमवातलम्।।
शृतशीतं सितायुक्तं दुग्धं गोभवमाज्यकम्।
मध्वाद्यं मिष्टमपरं मद्यानि विविधानि च।
करोत्यग्निबलं पुंसां वलीपलितनाशनम्।
मेधायुः कान्तिजननः कामोद्दीपनकृन्महान्।।
अभ्यासात्साधकः स्त्रीणां शतं जयति नित्यशः।
रतिकाले रतान्ते च पुनः सेव्यो रसोत्तमः।।
मानहानिं करोत्यासां प्रमदानां सुनिश्चितः।
कृत्रिमं स्थावरविषं जङ्गमं वर्षवारि च।।
न विकाराय भवति साधकानाञ्च वत्सरात्।
मृत्युञ्जयो यथाभ्यासान्मृत्युं जयति देहिनाम्।
तथायं साधकेन्द्रस्य जरामरणनाशनः।।
(Bhaisajyaratnavali, Vajikaranadhikara; 237-246)

Here I am discussing Swarna Ghatita Makaradhwaja. It is recommended for conditions where there is Dhatukshyajanya vyadhi**,** especially evident in symptoms like semen deficiency. Makaradhwaja is particularly suited for cases of emaciation and disorders influenced by Kapha and Vata doshas. Chronic ailments such as bronchiectasis, persistent ulcers, and issues affecting spermatogenesis are commonly treated with Makaradhwaja.

## Abhayarishta:

अभयायास्तुलामेकां मृद्वीकाऽर्द्धतुलां तथा।
विडङ्गस्य दशपलं मधूककुसुमस्य च।।

चतुर्दोणे जले पक्त्वा द्रोणमेवावशेषयेत्।
शीतीभूते रसे तस्मिन् पूते गुडतुलां क्षिपेत्।।

श्वदंष्ट्रां त्रिवृतां धान्यं धातकीमिन्द्रवारुणीम्।
चव्यं मधुरिकां शुण्ठीं दन्तीं मोचरसं तथा।।

पलयुग्ममितं सर्वं पात्रे महति मृन्मये।
क्षिप्त्वा संरुध्य तत्पात्रं मासमात्रं निधापयेत्।।

ततो जातरसं ज्ञात्वा परिस्राव्य रसं नयेत्।
बलं कोष्ठञ्च वह्निञ्च वीक्ष्य मात्रां प्रयोजयेत्।।

अर्शांसि नाशयेच्छीघ्रं तथाष्ठावुदराणि च।
वर्योमूत्रविबन्धघ्नो वह्निन सन्दीपयेत् परम्।।
(Bhaisajyaratnavali. Arshorogadhikara. 105-110)

I use Abhayarishta very commonly in my practice. I consider it as a Tridoshahara, especially when there is an involvement of Rasa rakta. It is also indicated in cases of vibandha, ajeerna, agnimandya lakshana, or grahani lakshana. Additionally, it is suitable for conditions with saama kapha or saama pitta lakshanas. Abhayarishta is also recommended in cases of irregular bowel movements, particularly occasional constipation and diarrhoea without a specific disease diagnosis. While these clinical signs may be related to sprue and similar conditions, they don't necessarily indicate sprue. Many individuals may present with this type of gastrointestinal issue that is not regular constipation. In such cases, my prescription choice would be Abhayarishta rather than Avipattikara Choorna. Avipattikara Choorna is better suited for regular constipation conditions. However, when there are altered bowel movements, such as occasional diarrhoea and occasional constipation or in diagnosed cases of Grahani, Abhayarishta becomes the preferred choice.

**General clinical conditions:** Haemorrhoids, Habitual constipation, Malabsorption pathologies. Occasionally, Abhayarishta may cause gripping pain. When a patient begins taking Abhayarishta to address constipation, they might initially experience some gripping pain during bowel movements. Although this discomfort is not constant and doesn't require significant concern, it is helpful to inform the patient about this possibility in advance. This way, they can be prepared and more easily accept this temporary side effect.

## Amritarishta:

अमृतायाः पलशतं दशमूल्यास्तथैव च।
पादावशिष्टं पक्त्वा च चतुर्दोणे जले भिषक्।।

गुडस्य त्रितुलाः सिद्धे क्वाथे शीते क्षिपेत्पुनः।
अजाज्याः षोडशपलं द्विपलं रक्तपुष्पकम्।।

सप्तच्छदं तथा व्योषं नागकेशरमब्दकम्।
कट्वीप्रतिविषे वत्सबीजञ्च पलसम्मितम्।।

सर्वमेकीकृतं भाण्डे निदध्यान्मासमात्रकम्।
अमृतारिष्ट इत्येष प्रोक्तो ज्वरकुलान्तकृत्।।
(Bhaisajyaratnavali, Jvaradhikarah: 690-693)

Amritarishta is one of my common prescriptions, indicated for a wide range of kapha vataja symptoms, rasa pradoshaja conditions, and saama vata disorders. Mrityunjaya Rasa shares these same indications. Regardless of the specific diagnosis, I often prescribe Amritarishta for all febrile conditions.

## Ashwagandharishta:

तुलार्द्धं चाश्वगन्धाया मुसल्याः पलविंशतिः।
मञ्जिष्ठाया हरीतक्या रजन्योर्मधुकस्य च।।

रास्नाविदारीपार्थानां मुस्तकत्रिवृतोरपि।
भागान् दशपलान् दद्यादनन्ताश्यामयोस्तथा।।

चन्दनद्वितयस्यापि वचायाश्चित्रकस्य च।
भागानष्टपलान् क्षुण्णानष्टद्रोणेऽम्भसः पचेत्।।

द्रोणशेषे कषायेऽस्मिन् पूते शीते प्रदापयेत्।
धातक्याः षोडशपलं माक्षिकस्य तुलात्रयम्।।

व्योषं तु द्विपलं ग्राह्यं त्रिजातकचतुः पलम्।
चतुःपलं प्रियङ्गोश्च द्विपलं नागकेशरम्।।

मासादूर्ध्वं पिबेदेनं पलार्द्धपरिमाणतः।
मूर्च्छामपस्मृतिं शोषमुन्मादमपि दारुणम्।।

कार्य्यमर्शांसि मन्दत्वमग्नेर्वातभवान् गदान्।
अश्वगन्धाद्यरिष्टोऽयं पीतो हन्यादसंशयम्।।
(Bhaisajyaratnavali, Moorchhadhikara; 13-19)

In cases of kaphavritta vata lakshna and mamsa medoja lakshnas, where a patient experiences pain in the limbs after exercise, feels less energetic following a reduction in food intake, exhibits exercise intolerance marked by pain or muscular spasms, and prefers warmth, Ashwagandha is indicated. For

neuritis, Ashwagandharishta is recommended. This condition is commonly seen in middle-aged patients and is often referred to as calcium deficiency. Instead of contemporary calcium supplements, I prescribe Ashwagandharishta. Although it is not a direct replacement for calcium, it enhances the overall metabolic capacity of tissues and provides relief. Ashwagandha is also indicated for all degenerative disorders.

## Usheerasava:

उशीरं बालकं पद्मं काश्मर्यं नीलमुत्पलम्।
प्रियङ्गुं पद्मकं लोध्रं मञ्जिष्ठां धन्वयासकम्।।
पाठां किराततिक्तञ्च न्यग्रोधोदुम्बरं शटीम्।
पर्पटं पुण्डरीकं च पटोलं काञ्चनारकम्।।
जम्बूशाल्मलिनिर्यासं प्रत्येकं पलसम्मितम्।
सर्वं सुचूर्णितं कृत्वा द्राक्षायाः पलविंशतिम्।।
धातकीं षोडशपलां जलद्रोणद्वये क्षिपेत्।
शर्करायास्तुलां दत्वा क्षौद्रस्यार्द्धतुलां तथा।।
मासं संस्थापयेद् भाण्डे मांसीमरिचधूपिते।
उशीरासव इत्येष रक्तपित्तविनाशनः।।
पाण्डुकुष्ठप्रमेहार्शः कृमिशोथहरस्तथा।।
(Bhaisajyaratnavali, Raktapittadhikara: 137-141)

Usheerasava is indicated in cases of urdhvaga raktapitta, such as bleeding from the nose, eyes, or ears. It is also beneficial for collagen tissue disorders characterized by capillary fragility, rashes, and erythema lesions on the body. Additionally, I prescribe Usheerasava for various menstrual disorders and urinary tract disorders. Based on my experience, it is effective for menstrual irregularities and excessive discharge in Raktapradara. Usheerasava is also suitable for treating urinary tract infections and bleeding disorders. Occasionally, patients may experience constipation as an adverse reaction.

## Kumaryasava:

सुपक्वरससंशुद्धं कुमार्याः पत्रमाहरेत्।।१८।।
यत्नेन रसमादाय पात्रे पाषाणमृन्मये।
द्रोणे गुडतुलां दत्त्वा घृतभाण्डे निधापयेत्।।१९।।
माक्षिकं पक्वलोहं च तस्मिन्नर्धतुलां क्षिपेत्।
कटुत्रिकं लवङ्गं च चातुर्जातकमेव च।।२०।।
चित्रकं पिप्पलीमूलं विडङ्गं गजपिप्पली।
चविकं हपुषा धान्यं क्रमुकं कटुरोहिणी।।२१।।
मुस्ता फलत्रिकं रास्ना देवदारु निशाद्वयम्।
मूर्वा मधुरसा दन्ती मूलं पुष्करसम्भवम्।।२२।।

बला चातिबला चैव कपिकच्छुस्त्रिकण्टकम्।
शतपुष्पा हिङ्गुपत्री आकल्लकमुटिङ्गणम्।। २३।।
पुनर्नवाद्वयं लोध्रं धातुमाक्षिकमेव च।
एषां चार्धपलं दत्त्वा धातक्यास्तु पलाष्टकम्।। २४।।
पलं चार्धपलं चैव पलद्वयमुदाहृतम्।
वपुर्वयःप्रमाणेन बलवर्णाग्निदीपनम्।। २५।।
बृंहणं रोचनं वृष्यं पक्तिशूलनिवारणम्।
अष्टावुदरजान् रोगान् क्षयमुग्रं च नाशयेत्।। २६।।
विंशतिं मेहजान् रोगानुदावर्तमपस्मृतिम्।
मूत्रकृच्छ्रमपस्मारं शुक्रदोषं तथाश्मरीम्।। २७।।
क्रिमिजं रक्तपित्तं च नाशयेत् तु न संशयः।
(Sharngadhara Samhita, Madhyamakhanda, Adhyaya 10; 18-27 )

It is another very frequently prescribed drug. In any case of dhatwagnimandya, Kumaryasava and Arogyavardhini Rasa are indicated. Sometimes, they can be used together. When there is predominant dhatwagnimandya, we may combine both drugs. Kumaryasava is prescribed for moderate dhatwagnimandya, such as in a child with an irregular appetite. Particularly in cases of children addicted to junk food like fried potato chips where the mother says the child doesn't eat, Kumaryasava is indicated. For vague gastrointestinal symptoms with dhatwagnimandya features and malabsorption conditions, Kumaryasava is prescribed. Additionally, Kumaryasava is often prescribed for dysmenorrhea, as indicated in the texts.

## Khadirarishta:

खदिरस्य तुलार्धं तु देवदारु च तत्समम् ।
बाकुची द्वादशपला दार्वी स्यात् पलविंशतिः ।।
त्रिफला विंशतिपला ह्यष्टद्रोणेऽम्भसः पचेत्।
कषाये द्रोणशेषे च पूते शीते विनिक्षिपेत्।।
तुलाद्वयं माक्षिकस्य तुलैका शर्करा मता ।
धातक्या विंशतिपलं कङ्कोलं नागकेशरम्।।
जातीफलं लवङ्गलात्वक्पत्राणि पृथक् पृथक् ।
पलोन्मितानि कृष्णाया दद्यात् पलचतुष्टयम् ।।
घृतभाण्डे विनिक्षिप्य मासादूर्ध्वं पिबेन्नरः।
महाकुष्ठानि हृद्रोगं पाण्डुरोगार्बुदे तथा।।
गुल्मं ग्रन्थिं कृमीन् कासं श्वासं प्लीहोदरं जयेत्।
Sharangdhar Samhita Madyam Khand

Khadirarishta is prescribed when there is Raktavrita vata, particularly involving Rasa and Rakta dhatus, presenting with features like shotha (swelling) and mandala (circular lesions). In cases of septic foci, especially in children with

pyoderma-like conditions where multiple infective lesions are present and a specific diagnosis is challenging, Khadirarishta is highly effective. Often, these conditions might be due to streptococcal infections that have not responded well to antibiotics. Such nonspecific conditions are frequently brought to Ayurveda clinics, and Khadirarishta works well in these scenarios.

In rare cases of severe anemia that do not respond to standard treatments like Draksharishta or Brihmana aushadis, and where there is a tendency for bone marrow depression, Khadirarishta is preferred. This is because it is mentioned as one of the medicines for kushtha, and gambhira dhatugata kushtha often presents with Pandu (anemia). Whenever anemia is accompanied by skin manifestations, Khadirarishta is a better choice. For instance, in very chronic psoriasis conditions where anemia is often observed, Khadirarishta would be an effective option.

## Mustakarishta:

मुस्तकस्य तुलाद्वन्द्वं चतुर्दोणेऽम्बुनः पचेत्।
पादशेषे रसे तस्मिन् क्षिपेद् गुडतुलात्रयम्।।
धातकीं षोडशपलां यमानीं विश्वभेषजम्।
मरिचं देवपुष्पञ्च मेथीं वह्निञ्च जीरकम्।।
पलयुग्ममितं क्षिप्त्वा रुद्वभाण्डे निधापयेत्।
संस्थाप्य मासमात्रन्तु ततः संस्रावयेद्भिषक्
अजीर्णमग्निमान्द्यञ्च विसूचीमपि दारुणाम् ।
ग्रहणीं विविधा हन्ति नात्र कार्या विचारणा।।
Bhaisajyaratnavali, Agnimandyaadi Rogadhikara 108-111

Another drug that I commonly prescribe is particularly effective for Kapha-Vataja disorders, Agnimandya (digestive impairment), and Grahani (malabsorption syndrome). When a patient presents with Agnimandya and Grahani, either Mustakarishta or Anandabhairava Rasa would be my choice. Sometimes, I prescribe both of these drugs together for enhanced effectiveness.

## Saraswatarishta:

समूलपत्रशाखाया ब्राह्म्याः ब्राह्ममुहूर्तके।
गृहीत्वा विंशतिपलं पुष्पयोगे शतावरी।।
विदारिकाभयोशीराण्यार्द्रकञ्च तथा मिशिः।
पञ्च पञ्च पलान्येषां जलद्रोणे पचेद्भिषक्।।
पादावशेषे विस्राव्य रसं वस्त्रेण गालयेत्।
माक्षिकस्य दशपलं सितायाः पञ्चविंशतिः।।

धातकी पञ्चपलिका रेणुका त्रिवृता कणा।
देवपुष्पं वचा कुष्ठं वाजिगन्धा विभीतकी।।
अमृतैला विडङ्गं त्वक् प्रत्येकं कर्षसम्मितम्।
क्वाथे तस्मिन् समस्तानि समाक्षिप्य प्रयत्नतः।।
स्वर्णकुम्भे निदध्याद्वा नवे मृद्भाजनेऽपि वा।
स्वर्णस्य तनु पत्रञ्च क्षिप्त्वाऽस्मिन् कर्षसम्मितम्।।
मासाज्जातरसं दृष्ट्वा हेमपत्रे क्षयं गते।
वाससा च परिस्राव्य स्थापयेद् घृतभाजने।।
सारस्वताभिधोऽरिष्ट एषोऽमृतसमः पुरा।
शिष्याणामुपकारार्थ धन्वन्तरिविनिर्मितः।।
आयुर्वीर्य स्मृतिं मेधां बलं कान्तिं विवर्द्धयेत्।
वाग्विशुद्धिकरो हृद्यो रसायनवरः स्मृतः।।
बालकानाञ्च यूनाञ्च वृद्धानाञ्च सदा हितः।
नरनारीहितो नित्यं परमोजस्करो मतः।।
वारयेत्स्वरकार्कश्यं तथा चास्पष्टभाषणम्।
स्वरं परभृतस्येव जनयेत्सेवनात् सदा।।
रजोदोषेण दुष्टानां योषितां शुक्रदोषिणाम्।
पुंसाञ्चापि शुभकरः सर्वदोषहरो मतः।।
अत्यध्ययनगीतादिक्षीणस्मृतिबला नराः।
लभन्ते चित्तसन्तोषं स्मृतिञ्चास्य निषेवणात्।।
पयसा सह पातव्योऽरिष्टोऽयं शाणमानतः।
मासाभ्यां रोगहृच्चापि शरदा सर्वसिद्धिदः।।
(Bhaisajyaratnavali, Rasayanadhikara 178-191)

I consider Saraswatarishta as Tridoshahara. Again, the ability to consider the ratio is arbitrary. In the conditions of Ojokshaya and whenever there is a need for Medhya Rasayana, it is indicated. Ojokshaya lakshanas are exactly similar to the features of anxiety neurosis. So, when the patient feels that he has a fear and feels weak, it is one of the specific prescriptions that I prescribe.

**Clinical conditions-** hypertension, psychiatric disorders, degenerative pathologies.

## Jeerakadyarishta:

जीरकस्य तुलाद्वन्द्वं चतुर्द्रोणजले पचेत्।
द्रोणशेषे क्षिपेत्तत्र तुलात्रयमितं गुडम्।।

धातकीं षोडशपलां शुण्ठीञ्च द्विपलोन्मिताम्।
जातीफलं मुस्तकञ्च चातुर्जातं यमानिकाम्।।

कक्कोलं देवपुष्पञ्च पलमानेन निक्षिपेत्।
मासं संस्थाप्य भाण्डे च मृत्तिकापरिनिर्मिते।।

ततः कल्कान् विनिर्हत्य पाययेत् कर्षमात्रया।
अरिष्टो जीरकाख्योऽयं निहन्यात् सूतिकामयान्।।
ग्रहणीमतिसारञ्च तथा वनेश्च वैकृतम्।।
(Bhaisajyaratnavali, Strirogadhikara, 492-495)

Jeerakadyarishta acts as a pachana and is indicated in the case of Pittavritta vyadhi, particularly when the patient's condition is precipitated by consuming ushna, katu, or vidahi ahara (hot, pungent, or irritating foods). For instance, if a patient complains of abdominal pain after consuming katu or vidahi ahar like Manchurian, Jeerakadyarishta provides very gratifying results. Similarly, if a patient has gastrointestinal issues due to eating ice cream and consults me the next day, I would prescribe Kumaryasava. For all colic pains where the patient presents with vague abdominal pain without specific causes, I would prescribe Jeerakdyarishta. Nowadays, such nonspecific colic pain is recognized under the ICD-10 diagnosis.

## Draksharishta:

द्राक्षातुलार्धं द्विद्रोणे जलस्य विपचेत् सुधीः।।
पादशेषे कषाये च पूते शीते विनिक्षिपेत्।
गुडस्य द्वितुलां तत्र त्वगेलापत्रकेशरम्।।
प्रियङ्गुर्मरिचं कृष्णा विडङ्गं चेति चूर्णयेत्।
पृथक्पलोन्मितैर्भागैस्ततो भाण्डे निधापयेत्।।
समन्ततो घट्टयित्वा पिबेज्जातरसं ततः।
उरःक्षतं क्षयं हन्ति कासश्वासगलामयान्।।
द्राक्षारिष्टाह्वयः प्रोक्तो बलकृन्मलशोधनः।
Sharngadhara Samhita Madhyamakhanda Adhyaya 10; 69-72

It can be indicated as a Brihmana dravya when the patient mainly exhibits Vataja or Pittaja lakshanas. This could include conditions such as anemia, emaciating disorders, chronic bronchitis, and neuritis.

## Pippalyasava:

Pippalyasava is a well-known remedy often used for bronchitis, but my prescriptions extend beyond just bronchitis. It is particularly useful for patients with Agnimandya, especially when accompanied by heaviness in the abdomen, characteristic of Mandagni lakshanas. These patients may also exhibit a tendency for nausea and a feeling of vomiting without actually vomiting. In such cases, Pippalyasava can be beneficial, often providing relief with a single dose. Another common indication is when the patient experiences symptoms like romaharsha (goosebumps) or romasantapa (a sensation of burning on the skin).

Even if modern diagnostic methods cannot pinpoint the exact cause, Pippalyasava can significantly alleviate these symptoms, providing substantial relief to the patient.

In cases where patients experience a sweet taste in the mouth, Pippalyasava serves as a specific remedy. Its application is not confined to a particular disease but extends to patients exhibiting such symptoms, which can often be interpreted through the concepts of dosha and dushya in Ayurveda. While contemporary diagnosis may use terms like gastrointestinal tract anomaly or gastritis, understanding these dosha-dushya combinations allows for effective prescribing based on the underlying principles of Ayurveda.

## Why this exercise:

While I haven't listed all my prescriptions, I commonly use these. You don't need to use the exact medicines I mention; choose any Ayurvedic prescriptions for your practice. The key is analyzing prescriptions through the lens of dosha and dushya lakshanas for efficient and observable results. This aligns with Samhita teachings, allowing choice based on medicine availability. Once you narrow down your drugs and understand how they match dosha-dushya indications, administer them in forms like kalka, kwatha, sneha, lehyam, and rasaaushadhi. Besides Vagbhata's views, medicines can be given as paniya, nasya, anuvasan, etc. It boils down to identifying dosha-dushya combinations and dravya indications based on Rasa, veerya, guna, and vipaka. Though roga pareeksha is recommended, our situation often requires using available medicines and selecting suitable patients, as preparing medicines post-examination is rare and challenging. Adapt to using readily available medicines for appropriate patients. This might sound complex, but with clear understanding of your medicines, you can effectively use them for any patient. Naturally, questions arise about whether roga pareeksha or aushadha pareeksha is more important. The answer provided by Acharya Charaka is very significant.

रोगमादौ परीक्षेत ततोऽनन्तरमौषधम् ।
ततः कर्म भिषक् पश्चाज्ज्ञानपूर्वं समाचरेत् ।।
यस्तु रोगमविज्ञाय कर्माण्यारभते भिषक् ।
अप्यौषधविधानज्ञस्तस्य सिद्धिर्यदृच्छया ।।
यस्तु रोगविशेषज्ञः सर्वभैषज्यकोविदः ।
देशकालप्रमाणज्ञस्तस्य सिद्धिरसंशयम्। । (Ch. Su .20/20.21.22)

If you have a perfect knowledge of aushadhi, occasionally or accidentally, you may get some results. But when you have a perfect background of roga as well, you can have a perfect assessment of the vyadhi. Simultaneously, you must

have a perfect assessment of aushadhi, and they have to be matched together. Also, those who know about desha, kaala, pramana, like the availability of the drug, the current season, and the dosage of the drug, including the contemporary mode of drug administration, for example, two tablets, one Kashaya, and so on. So, there is a general perception about Ayurvedic prescription in patients that we somewhat meet. Not necessarily are these the essential aspects of the practice, but somehow you can meet the expectations of the patient with that. This is what has been said, and what I have pursued in my practice is also the same.

# Links to the Original Lectures

| No | Chapter | Link |
|---|---|---|
| 1 | Essentials of Good Clinical Practice in Ayurveda | https://ayurvedanetworkbhu.com/a-lecture-on-approach-to-ayurvedic-practice-by-prof-muralidhara-sharma/ |
| 2 | Diseases of the Respiratory System | https://ayurvedanetworkbhu.com/lecture-on-ayurvedic-practice-diseases-of-respiratory-system-by-dr-muralidhara-sharma/ |
| 3 | Udakvaha Srotas and Prameha | https://ayurvedanetworkbhu.com/lecture-on-prameha-and-diseases-of-udakavaha-srotas-by-dr-muralidhara-sharma/ |
| 4 | Hypertension and Hridroga | https://ayurvedanetworkbhu.com/lecture-on-hypertension-and-hrudroga-by-dr-muralidhara-sharma/ |
| 5 | Annavha Srotas Disorders | https://ayurvedanetworkbhu.com/lecture-on-anna-vaha-srotas-git-disorders-clinical-experience-prof-muralidhara-sharma/ |
| 6 | Ayurvedic Management of Hepatobiliary Disorders | https://ayurvedanetworkbhu.com/ayurvedic-management-of-hepatobiliary-disorders/ |
| 7 | Ayurvedic Management of Psychiatric Disorders | https://ayurvedanetworkbhu.com/virtual-cme-on-ayurvedic-management-of-psychiatric-disorders-by-prof-muralidhara-sharma/ |
| 8 | Concepts of Malignancy in Ayurveda | https://ayurvedanetworkbhu.com/cme-on-the-role-of-ayurveda-in-the-management-of-malignant-disorders-by-prof-muralidhara-sharma/ |
| 9 | Rationality of Ayurvedic Prescriptions | https://ayurvedanetworkbhu.com/lecture-on-rationality-of-ayurvedic-prescriptions-hrudroga-by-dr-muralidhara-sharma/ |

# About Ayurveda Network

**Ayurveda Network** is a network of experts established under Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT) of the Ministry of Education, Government of India in 2018-19 in the Faculty of Ayurveda, Banaras Hindu University. This was initiated under Subject-Based Network component of PMMMNMTT program. After the completion of its tenure, the Ministry of Ayush has been funding this project since February 2022, under ***"Ayurgyan"*** Central Sector Scheme of CCRAS for "Web-based (on-line) educational programs" which is being coordinated by Rashtriya Ayurveda Vidyapeeth, New Delhi. We have developed a web portal that can be accessed at **ayurvedanetworkbhu.com** where all our activities are reflected. Around 50 experts from specific specialties of Ayurveda and relevant disciplines have been inducted, who have contributed to the development of the contents hosted on our portal.

Ayurveda Network engages in a variety of activities aimed at promoting knowledge and education in Ayurveda. This includes creating educational content such as video lectures, lecture notes, articles, and different modules covering various aspects of Ayurveda. We also organize webinars, webinar series, and symposia to facilitate discussions and exchange of ideas among professionals and scholars in the field. Workshops are conducted to enhance academic writing skills and teaching-learning methods. Additionally, we publish e-books and research articles to contribute to the body of knowledge in Ayurveda. The network has a strong presence over Facebook, Twitter, YouTube and SlideShare.

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## Author's Profile

Prof. Muralidhara Sharma, born on March 7, 1958, embarked on his academic journey at Udupi Ayurveda College, Udupi, where he pursued his graduate degree in Ayurveda. Later, he completed his postgraduate studies at the Faculty of Ayurveda, Banaras Hindu University, specializing in Shalya Tantra. He began his career as a Lecturer in 1983 at SDM College of Ayurveda, Udupi where he later assumed the roles of Reader, Professor, and Medical Superintendent of the Hospital in 2014 until his retirement on March 31, 2018. Post-2018, he has been serving as Professor Emeritus at the same institution.

Prof. Sharma's contributions are evident, particularly in the growth of the Shalyatantra department at SDM College of Ayurveda from its inception. Under his leadership, the department achieved recognition as a 'Centre of Excellence in Shalyatantra training and practice'. Noteworthy among his achievements is the development of an Ayurvedic protocol for post-operative management. Integrating modern technologies like endoscopes in the patient care has been his uniqueness. His clinical proficiency, blending traditional Ayurvedic principles with a modern outlook - are well-regarded, with over 15 publications to his credit.

Furthermore, Prof. Sharma is a highly sought-after resource person, actively contributing to workshops, conferences, and Continuing Medical Education (CME) programs. His remarkable achievements have been acknowledged with prestigious awards such as the National Sushruta Award and the Best Teacher Award by Rajiv Gandhi University of Health Sciences and by the National Sushruta Association.

Prof. Sharma is highly esteemed for his exceptional teaching abilities, surgical expertise, and proficiency as an Ayurveda practitioner. His unwavering dedication to education, research, and clinical practice has earned him widespread respect and acclaim within the Ayurveda community.

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