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Jamnagar, India**



Souvenir

Based on

Prof. M.S. Baghel

Memorial Lecture Series

[February 09, 2021 – January 09, 2022]

Edited by Dr. Gopal Basisht

Foreword by Vd. Rajesh Kotecha



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**Website: www.charaksamhita.com, www.symbiohealth.com,
www.carakasamhitaonline.com**

- **Title:** Souvenir based on Prof. M.S. Baghel Memorial Lecture Series

- **Editor:** Dr. Gopal Basisht , Orlando, U.S.A.

- **ISBN:** 978-81-948207-0-3

- **First Edition,** 2022

- **Foreword by:**

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Secretary
Government of India
Ministry of AYUSH
New Delhi – 110023 India

- **Published and Printed by:**

FHED (India) Trust's
Charak Samhita Research, Training and Skill Development
Centre
in collaboration with
Institute of Teaching and Research in Ayurveda
Jamnagar -361008 India

- **Contact:** csrtsdc@gmail.com

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ISBN: 978-81-948207-0-3

Published and Printed by: FHED (India) Trust's

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वैद्य राजेश कोटेचा
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FOREWORD

Prof. M. S. Baghel was a great visionary in the field of Ayurveda. He devoted his life for uplifting the standards of Ayurveda education and research. I remember him and pay tribute to his holy soul. He has been the founder member of the Charak Samhita New Edition Project initiated by Dr. Gopal Basisht with stalwarts of Ayurveda across India. This project is a milestone to change the views of scientists and researchers to read classical Ayurveda text to contemporary evidence-based Ayurveda on a single open-access platform. Prof. Baghel played a crucial role in establishing Charak Samhita Research, Training and Skill Development Centre in collaboration with I.P.G.T. & R.A. (now I.T.R.A.) Jamnagar. This Center is continuously involved in propagating Ayurveda across the globe. A lecture series, "Prof. M.S. Baghel Memorial Lecture Series," was organized to offer tribute to the legend. It included twelve lectures delivered by experts on the topics related to challenges in the healthcare field. The editorial team and speakers have converted the video lectures into articles to enrich the research database. It is a pleasure to read this souvenir of articles based on lectures delivered by international Ayurveda experts on critical areas of Ayurveda research and education.

The critical and challenging topics for Ayurveda clinical research and education are comprehensively described in this souvenir. This publication is a quality content with a mix of experience and evidence by eminent specialists of Ayurveda. I congratulate Dr. Gopal Basisht and Dr. Anup Thakar for conducting this unique lecture series and transforming the lectures into documentary evidence. I am sure that this Souvenir will be read and referred by the learners and scholars seeking knowledge of Ayurveda as a science.

राजेश कोटेचा

(Rajesh Kotecha)

New Delhi
23rd February, 2022



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No. ITRA/Dir/2021-22/

Date: 02.03.2022

Preface

Prof. M. S. Baghel is immortal through his teachings and practical approach towards Ayurveda. He envisioned propagating Ayurveda on the global platform and devoted his life to this purpose. He played a significant role in uplifting the status of Ayurveda as a scientific evidence-based healthcare system. He has been instrumental in developing Charak Samhita New Edition on the wiki platform. This website is viewed in more than 180 countries and read by more than 15K readers per month. Prof. Baghel was the founder member and advisor of Charak Samhita Research, Training and Skill Development Centre (CSRTSDC). When he left the physical world on January 09, 2021, it was a heavy loss of all Ayurveda fraternity. The center's Advisory board decided to pay homage through a lecture series in his memories. It was decided to organize a monthly lecture on 9th day of every month till his first death anniversary.

The Prof.M.S.Baghel Memorial Lecture Series included twelve talks by eminent speakers on important healthcare topics. As Prof. Baghel was an internationally renowned personality, the experts on specific issues readily accepted the invitation. All the lectures were streamed live on the Facebook Page of the Centre. These lectures were well received by the global audience and have more than 10K views. The series was successfully completed on January 09, 2022. The video recordings were edited and posted on the YouTube channel. The team of CSRTSDC transformed these lectures into research-based documents with the help of speakers and published them online on the website for readers. A comprehensive collection of all these important articles is being published in this souvenir.

The critical and challenging topics for Ayurveda clinical research and education are elaborately described in this souvenir. We acknowledge the support of all speakers Prof.S.K. Sharma Khandel, Vaidya DilipGadgil, Prof. H. M. Chandola, Dr.Mukund Sabnis, Dr. Rohit Sane, Dr. S. H. Acharya, Dr. S.R. Narahari., Dr. Narayan Prakash, Prof. Vd. Upendra Dixit, Vaidya Ram Manohar and Prof. Dr. S.N. Gupta for their timely deliberations and expert talks. We hope this souvenir will be helpful for all learners of Ayurveda and serve the purpose of a reference manual on major challenges in the healthcare field. Ayurveda can provide a better solution in these areas, as discussed in the respective articles.



(PROF. ANUP THAKAR)
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Editorial

Prof. M. S. Baghel was a great teacher and researcher. I was impressed with his thoughtful deliberations. Being a modern physician, I was a new learner of Ayurveda. But, Prof. Baghel made the learning simplified. He encouraged me to learn fundamental principles of Ayurveda and include them in my clinical practice. We discussed many aspects of education and research in Ayurveda and healthcare. He was a key person who led me on the path for publication of Charak Samhita New Edition Project. He guided from time to time and made all his resources available for proper project implementation. Unfortunately, we lost him in mid-way. He will be remembered forever in the form of his contribution and dedication to this project.

The lecture series organized in his memory and publication of this souvenir is an effort to pay tribute to the stalwart. In the current global pandemic Covid-19, the article “Principles of management of Infectious diseases through Ayurveda” by Prof. S.K. Sharma Khandel gives insight towards empowering defense strategies to fight infectious diseases. The article on management of Cancer by Vaidya Dilip Gadgil focuses on preventing and treating malignancies through Ayurveda. The writing on the management of acid peptic diseases by Prof. H. M. Chandola provides comprehensive information about the most typical health problem.

Dr. Mukund Sabnis, a renowned expert in obesity management, has poured experience-based views in his article on the management of metabolic syndrome and obesity in Ayurveda. Another well-known cardiologist, Dr. Rohit Sane, has given precise information with published evidence on the ayurvedic management of cardiac diseases. The article on the management of neurological disorders by distinguished professor Dr. S. H. Acharya elaborates the scopes of Ayurveda services in neurology. Dr. S.R. Narahari, a dedicated researcher in dermatology, has put his experience and evidence together in writing on the management of skin diseases in integrative medicine.

Dr. Narayan Prakash covers the scope of the fast-developing research field of Ayurveda psychiatry in the article on the management of psychiatric diseases. Prof. Vd. Upendra Dixit, an eminent physician, wrote the experience-based protocols for managing medical emergencies in Ayurveda.

In the article on the management of rheumatic diseases, Vaidya Ram Manohar has narrated the fundamental concepts very nicely. Prof. Dr. S.N. Gupta, a renowned expert in managing kidney diseases, put forward his clinical practice experiences with scientific evidence. Prof. Anup Thakar precisely answers the challenges of practicing panchakarma to preserve health in the modern lifestyle in his article. We thank all speakers for their active participation and kind support. I hope this souvenir will be helpful for the learners of Ayurveda.



Dr. Gopal K. Basisht
Orlando, Florida, U.S.A.

CONTENTS

| Sr. No. | Topic | Authors | Page no. |
|----------------|--|---------------------------------|-----------------|
| 1. | Infectious diseases | S. K. Sharma Khandel | 1-6 |
| 2. | Cancer | Dilip Gadgil | 7-20 |
| 3. | Acid peptic diseases | H.M. Chandola | 21-34 |
| 4. | Obesity and Metabolic syndrome | M. S. Sabnis | 35-47 |
| 5. | Cardiac diseases | Rohit Sane | 48-57 |
| 6. | Neurological diseases | S. H. Acharya | 58-65 |
| 7. | Skin diseases in Integrative medicine | S. R. Narahari | 66-79 |
| 8. | Psychiatric diseases | Narayan Prakash B. | 80-87 |
| 9. | Emergency medicine in Ayurveda | Upendra Dixit | 88-99 |
| 10. | Rheumatic diseases | P. Ram Manohar | 100-109 |
| 11. | Kidney diseases | S. N. Gupta | 110-119 |
| 12. | Panchakarma in modern lifestyle | A. B. Thakar | 120-129 |

Rheumatic diseases

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Website link:

https://www.carakasamhitaonline.com/index.php?title=Rheumatic_diseases

Youtube link of recorded lecture:

<https://www.youtube.com/watch?v=2CoHCVGG27w>

This article is based on a lecture delivered by Vd. P. Ram Manohar, Research Director, Amrita School of Ayurveda, Amritapuri, Kollam, Kerala, India. in Prof. M. S. Baghel Memorial Lecture Series on November 09, 2021.

Rheumatism & Rheumatology

Diseases that affect the muscles, bones, joints, ligaments, and tendons resulting in pain, swelling, stiffness, and potentially causing joint deformities are called 'rheumatic disorders'. The study of such associated conditions is called 'rheumatology'. Rheumatologists treat a group of diseases called "systemic autoimmune diseases", otherwise termed as "collagen vascular diseases" or "connective tissue diseases". This is a group of diseases where a person's immune system attacks his body systems. This ends up causing inflammation, pain, swelling, and organ damage. These may affect the eyes, skin, nerves, kidneys, lungs, heart, and other internal organs. Rheumatoid arthritis, systemic lupus erythematosus, Sjogren's disease, scleroderma, polymyositis, and vasculitis, etc. are some examples.

The term rheumatism includes a variety of disorders marked by inflammation, degeneration, or metabolic derangement of connective tissue structures (especially joints and related structures). The clinical features include pain, stiffness, or limitation of movement. It includes such disorders as arthritis, osteoarthritis, bursitis, and sciatica.

Ayurvedic perspective

Involvement of three dosha and middle pathways of the manifestation of diseases (madhyama rogamarga) can be inferred. Inflammation, degeneration, and metabolic

derangement represent tridosha. Involvement of joints and connective tissue represents the middle pathway of manifestation of diseases (madhyama rogamarga).

The Ayurvedic concept of 'joint' – termed as 'sandhi' represents not only bony joints but all connective tissues and collagen vascular disorders. [A. Hr. Sutra Sthana 12/47]^[1] The connective tissues in the body are all affected by inflammatory, degenerative, or metabolic pathologies. It shows derangement of dosha in various permutations and combinations. The simultaneous involvement of multiple structures in the disease pathogenesis makes the disease difficult to treat. [A. Hr. Sutra Sthana 13/21]^[1] Even in conditions like rheumatoid arthritis (vatarakta) vascular involvement is also very clearly indicated. [A. Hr. Nidana Sthana 16/18]^[1]

Role of ama

'Ama' is a key concept in the Ayurvedic understanding of physiology, pathology, and therapeutics. Rather than being a single entity or substance, ama denotes the deranged process of digestion and metabolism. It leads to metabolic byproducts in the body, which cannot be neutralized or eliminated by the body. It can be considered as a state of a substance in which it is not undergoing any further transformation, either digestion or metabolism. In Ayurveda, ama has been defined from three viewpoints. On a closer examination, it can be understood that these three viewpoints represent ama in its totality. They are as below:

1. Ama is the byproduct of impaired digestion.
2. Ama is the accumulation of unexpelled wastes in the body.
3. Ama is the first expression of aberrations in the physiological process in the body.[Madukosha-M.Ni. 25/1-5]^[2]

Ama formation may be due to inflammatory, metabolic as well as infective pathologies. Ama in a particular character triggers autoimmune disorders.

Classification of ama

I. Based on the quality:

1. Dormant ama in tissue (leena): This causes silent and chronic diseases like cardiovascular diseases, cancer etc.
2. Sudden manifestation of symptoms followed by dormant state (leena – aleena): Episodic illness like bronchial asthma, rheumatoid arthritis etc. Sudden flare-ups and remissions are the characteristic features of this condition.
3. Static or immobile state, ama cannot be removed from body in this state (achala)
4. Freely moveable state, ama can be removed easily from the body (chala)

Ama when becomes deep seated (leena) in the tissue (dhatu) it triggers auto immune disorders, because body is not able to distinguish between ama and the tissue (dhatu).

II. Based on quantity:

1. Less quantity (alpa)
2. Medium quantity (madhya)
3. Large quantity (bahu)

III. Based on location:

1. The alimentary canal (koshtha)
2. Peripheral tissues (shakha)
3. Vital points (marma)

IV. Based on state of dosha:

1. Undigested (ama)
2. Partially digested (vidagdha)
3. Occluded (vishtabdha)

The pathology changes based on the type of ama. If there is infective pathology, it is mostly due to an undigested state. Inflammatory pathologies are due to a partially digested state. [A. Hr. Nidana Sthana 16/1]^[1] The occluded state leads to a degenerative type of pathology. For the treatment, separation of ama from tissue (dhatu) is very much essential, otherwise, it will cause complications. [A. Hr. Sutra Sthana 13/28]^[1]

The treatment strategies change based on the location of ama and state of the dosha.

Joint diseases in Ayurveda

A careful study of the classical Ayurvedic texts reveals that joint and connective tissue disorders can be broadly divided into three categories viz 'Amavata', 'Vatarakta' and 'Sandhivata'. These disease entities are quite comprehensive as they represent the possible pathologies that can arise in the joints due to the derangement of kapha, pitta, and vata dosha respectively. There are other ailments of the joints to be considered like inflammatory swelling of the knee joint (kroshtukashirsha). An accurate fixed modern correlation is not at all possible in any of these conditions. 'Amavata' is correlated to rheumatoid arthritis, but the concept is much broader than that. It includes many other conditions like rheumatic fever, ankylosing spondylitis etc. In ankylosing spondylitis, when there is axial spondyloarthropathy the symptoms resemble amavata.[M.Ni. Amavatanidana/5] ^[2] There will be stiffness in the entire spine. It's an assortment of conditions put together because it mainly affects musculoskeletal diseases or due to the involvement of autoimmune pathologies. Rather than a fixed correlation, it is always

beneficial to keep a separate diagnosis system. A diagnosis in conventional medical system is based on the available criteria. Parallely, Ayurvedic diagnosis of the same condition can be done based on classical clinical features.

Amavata

This condition is predominantly seen in younger age where ama vitiation is happening very quickly. The body is in kapha dominant stage at this time.

It is caused by incompatible (virudha) foods. The signs of accumulation of ama are seen in the premonitory stage. The ama is accumulated in the bigger and smaller joints. The onset is sudden. It initially affects the big joints and later all joints in the body.

Vatarakta

Vatarakta is usually seen in middle age. Pitta dosha dominance is observed in this age. It manifests due to vitiation of blood (rakta dhatu) and vata dosha at the same time. It affects not only the joints but also the skin and blood vessels. Typically the disease starts with the symmetrical involvement of smaller joints of both hands and feet. [Cha.Sa.Chikitsa Sthana 29/12] [A. Hr. Nidana Sthana 16/7]^[1] Symmetrical arthritis is also a typical feature of rheumatoid arthritis described in conventional medicine.

In later stage, it spreads all over and systemic involvement is seen. [A. Hr. Nidana Sthana 16/7]^[1] In advanced stages, severe deformity of the joints is seen. When the skin is involved, it shows cutaneous manifestations. When blood vessels are involved, it can cause damage to the blood vessels, extreme pain, and even death.

It is caused by incompatible foods (viruddha) and foods that cause burning sensation (vidahi). Its progression is slow. In the premonitory stage, relapse and exacerbations is present. This disease evolves in two phases.

A. Superficial (uttana): It involves skin and connective tissues.

B. Deep (gambhira): It involves joints and other deeper structures.

Eventhough it involves blood and vata dosha vitiation, it also involves ama as a key pathogenic factor. In the beginning, the treatment should focus on kapha-vata dominance. Vitiation of blood shall be addressed to prevent complications.

Classification

Vatarakta is classified into 75 subtypes. There are 35 types of vata predominant vatarakta, 30 types of pitta predominance, and 10 types of kapha predominant vatarakta. [Chakrapani on Cha.Sa.Chikitsa Sthana 29/24-29] But in today's clinical practice, these sub-classifications are less focused. These subtypes might be 75 different stages of a single disease. Such stage-wise identification and its related treatments should be focused into clinical practice.

Some Ayurveda scholars correlate malignant conditions with vatarakta. Prolonged chronic inflammation is said to be the leading causative factor for malignancy. Thus it is logical that methotrexate, which is previously used for cancer management has become the mainstream drug for the treatment of rheumatoid arthritis.

Treatment principles

Vatarakta is said to be a condition where the body is in a state of anger against its systems. [A. Hr. Chikitsa Sthana 22/18]^[1] It is suggestive of autoimmune disorder. Just like anger cannot be appeased suddenly, the treatment of vatarakta also requires patience and an abundant amount of time. The flare-ups are unpredictable. After removing the ama and the body is purified the treatment should be continued for a long period to prevent a recurrence. This principle of treatment is very relevant in autoimmune diseases.

Sandhivata

Sandhivata is a degenerative disease of the joints. It is caused by food which causes obstruction (vishtambhi). Usually, it is a gradually progressing disease primarily caused by wear and tear. Sudden onset due to injuries is also observed in some cases.

Pain associated with movement is the typical feature of this condition. Swelling of the affected joint is present. On palpation, the joint feels as if filled with air. It may affect any joint.

Osteoarthritis is prevalent in old-aged persons. Vata dosha dominance is seen in this age group. In sandhivata, the main focus is on Vata dosha. It is usually correlated to osteoarthritis. Apart from this, other degenerative joint conditions like lumbar and cervical spondylitis also come under the umbrella of sandhivata.

Ayurvedic perspective of rheumatoid arthritis

It is difficult to find an exact match for rheumatoid arthritis (RA) in the classical texts of Ayurveda. In the early texts of Ayurveda like Charak Samhita, the major disease described that affects the joints is 'Vatarakta'. Vatarakta is described as an inflammatory disease affecting the joints. Some physicians correlate this condition with RA. 'Sandhivata' is very briefly mentioned in Charak Samhita. In the later texts like Madhava Nidhana, the first description regarding 'Amavata' is found. It may not be a new disease, but the term is introduced to give more granularity in understanding different clinically important conditions. It might be a condition where vitiation of blood (rakta) is not predominant. This condition is correlated with RA by some physicians.

Both correlations might be true. One condition is emphasizing ama more and the other condition emphasizes blood (rakta dhatu). A clinical study also reveals that when vitiation of blood is present, amavata treatment is not enough.^[3] Therefore, personified treatment principles in Ayurveda include management of both ama as well as rakta dhatu.

Table 1: Comparison of onset and clinical features of rheumatoid arthritis, amavata and vatarakta

| Rheumatoid Arthritis | Amavata | Vatarakta |
|---|---|--|
| Slow onset in most cases | Slow onset, not specified as a characteristic feature | Slow onset and progress is a typical characteristic similar to the spread of rat's poison |
| First affects fingers and toes of hand and feet | First affects the trika sandhi, which may be the joints in the lumbosacral region or the cervical region | Specifically mentioned that joints of hands and feet are affected first, especially fingers and toes |
| In some cases, general symptoms manifest before joints are affected | Typically, general symptoms manifest before joints are affected | Cutaneous manifestations may be seen in the prodromal stage. Typically starts with joint afflictions |
| Typically, joints are affected in a symmetrical fashion | Symmetrical involvement of joints not specified | Joints of both limbs affected at the same time |
| Morning stiffness of joints is a key symptom | Stiffness of the whole body is a characteristic sign, morning stiffness is not specified. It is also not specified whether the stiffness affects the joints | Stiffness is one of the signs. Morning stiffness not specified. |
| In the initial stages, there are remissions and flare ups | Remissions and flare-ups are not characteristic signs | Remissions and flare-ups are characteristic signs. |

It is difficult to make a one-to-one correlation. More research works are required to establish specific correlations.

Treatment

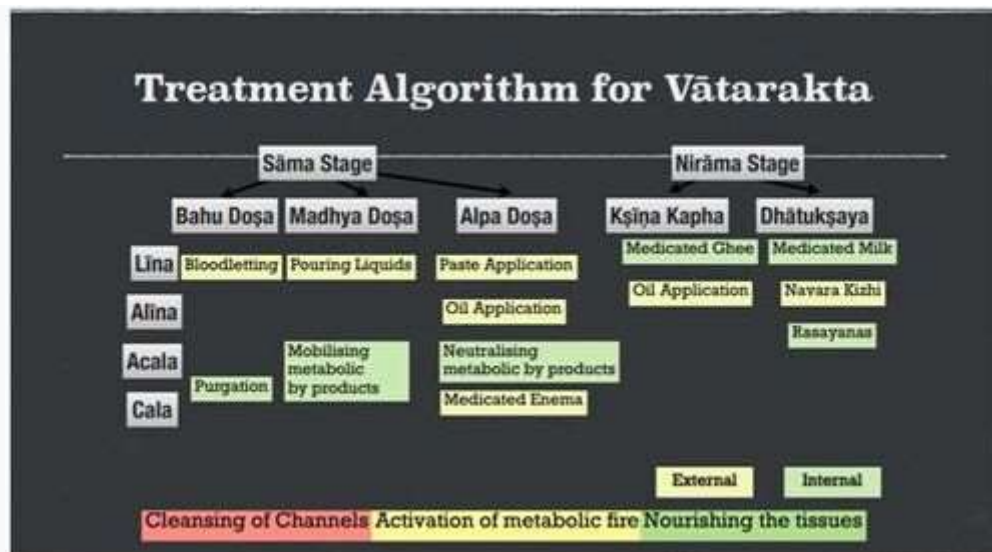


Image 1: Treatment algorithm for vatarakta

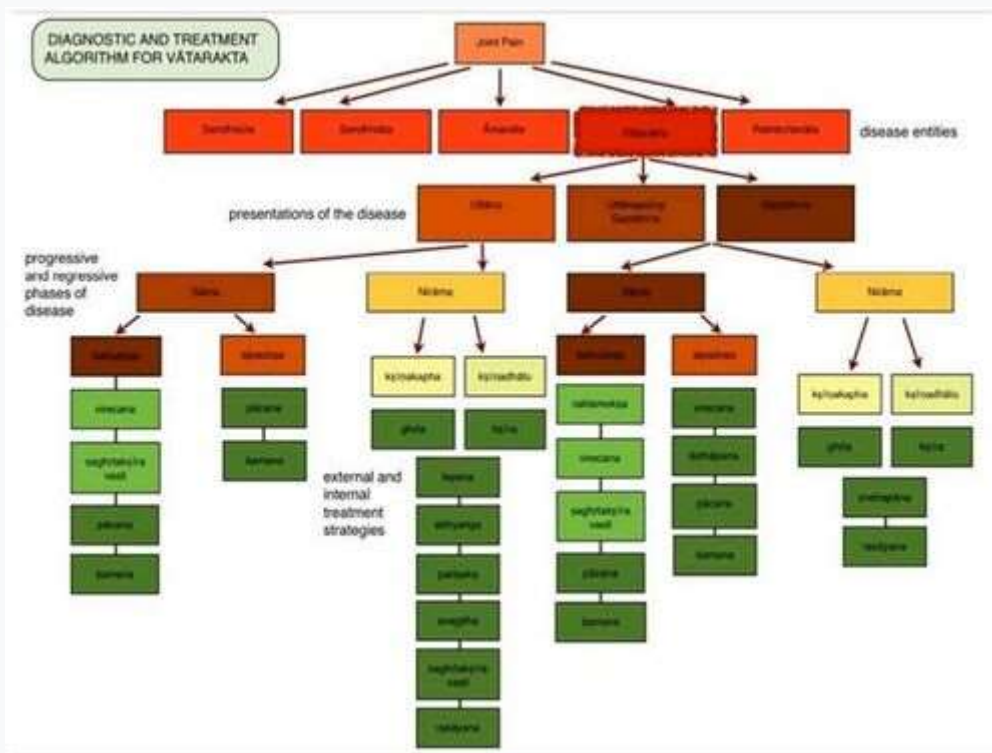


Image 2: Treatment algorithm for rheumatological diseases

The treatment depends on multiple factors. Rather than using a single medicine, a treatment algorithm is required for each disease. Especially in the case of chronic autoimmune diseases like rheumatoid arthritis, the approach should be to pacify the

immune system. The basic causes that triggered immune response shall be found out and treated accordingly. It is a slow and stage-wise process. The various stages of ama, dosha, dhatu shall be considered. Ayurveda offers a treatment algorithm based on all these as below Image 1 and 2:

Immediate purificatory treatments are not advised. [A. Hr. Sutra Sthana 13/21]^[1] It needs long-term treatment. Bringing the dosha back from the middle pathway (madhyama rogamarga) and the skin and six dhatus (shakha) to the gastrointestinal tract (koshtha) is the primary objective. This requires repeated medications for kindling (deepana) and promoting digestion (pachana). [A. Hr. Sutra Sthana 13/29]^[1] The treatment is decided on the structures involved in the pathogenesis.

Clinical perspective of pathogenesis

The Ayurvedic understanding of pathologies is different from conventional medical science. Pathogenesis of cervical spondylosis occurring in a person sitting continuously in an AC room and that in a person who is working on fields directly under the sun or by riding two - wheelers must be treated in different ways. Because the first condition is caused by the predominance of cold (shita) and dry (ruksha) properties and later is caused by hot (ushna) and dry (ruksha) properties. Even though the radiological investigations may appear similar in both conditions, but Ayurvedic treatment approach will be different. Some patients may get relief by using Karpasastyadi taila and some others with Pinda taila.

Clinical study on the comparative efficacy of Ayurveda and conventional treatments

In a study, preliminary testing of Ayurvedic treatment algorithm has been done. In this study, it is found out that if an Ayurvedic approach to diagnosis is followed in parallel to modern medicine diagnosis effective Ayurvedic treatment can be done without compromising scientific design. The study involved three groups. One group received methotrexate and Ayurvedic placebo, other group received Ayurvedic treatments and methotrexate placebo. The third group received Ayurvedic treatment and methotrexate. Placebos for Ayurvedic dosage forms are introduced in this study. American College of Rheumatology (ACR) criteria was applied for the assessment of clinical efficacy in all groups. It was found that at 6 months, the Ayurveda group showed maximum respondents with 20% improvement as per ACR criteria. After 9 months, the Ayurveda group showed maximum respondents with 70% improvement in ACR criteria, outnumbering the respondents in the allopathic group. Long-term persistent kindling (deepana) and digestive (pachana) therapy, with focus on middle pathway of manifestation of diseases (madhyama rogamarga), slowly bringing the ama was having a larger benefit. This study is recommended as a blueprint for future studies on complementary and alternative medicine. This paper also received the Excellence in Integrative medicine research award in 2012.^[3]

Management based on underlying pathologies

Amavata may express in two conditions, with involvement of blood and without its involvement. If the patient has vitiation of blood (rakta dushti), classical amavata treatment further vitiates the blood, and worsens the condition. This is because the property of medicines used is hot (ushna) and dry (ruksha) which disturbs blood. If vitiation of blood is present the treatment must include blood soothing (rakta prasadana) and ama-reducing drugs. Due to this property, *Tinospora cordifolia* (guduchi) becomes the most important drug in its treatment. It is one of the rare herb which reduces vata and kapha and soothes blood (rakta prasadana) simultaneously. So it can be used in all stages. But *Zingiber officinale* (sunti) and *Pluchea lanceolata* (rasna) is used in ama predominant condition only. If the predominance of blood is more, oils like *Yashtimadhu taila*, *Balaguduchyadi taila* etc are used. In a study, it is found that treatment given according to the combined ama and blood (rakta) concept yields better results. The 70% improvement is recorded which is equivalent to methotrexate. In the study, some patients had given only *Amrutotaram kashaya* which is more for ama. The other patients were given *Balaguduchyadi kashaya*, *Kokilakshaka kashaya* etc. focusing more on blood vitiation (rakta dushti).^[3]

Conclusion

Regarding the diagnosis of these rheumatological conditions, modern science diagnosis is also complex and based on assessment of multiple parameters. Specific conditions have been pinpointed by modern medicine through biological or molecular mechanisms. However, from the Ayurvedic perspective, involvement of middle pathway of diseases (madhyama rogamarga), ama and its classification, and the three broad pathologies viz amavata, vatarakta and sandhivata accommodate all these pathologies.

Correlating Ayurvedic disease with a biomedical condition or biomedical disease with an Ayurvedic condition won't yield desired results because both these approaches have limitations. It is better to diagnose the disease condition separately in each system and later can search for any natural correlations on case to case basis. The retrospective classification may yield more relevant correlations. Disease descriptions in classical Ayurvedic texts reveal that each disease entity described represents a cluster of diseases that stem from a common underlying pathology. Biomedical disease descriptions represent very specific pathological manifestations. From this point of view, a particular disease described in Ayurveda would correlate with a cluster of diseases in biomedicine. So instead of fixing one-to-one correlation, if we look at stages of disease and doshas and treat accordingly the results will be better. In Amavata more attention should be given to kapha dosha, in vatarakta more attention should be given to pitta dosha, and in sandhivata to vata dosha.

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