



## AYURVEDIC INTERVENTIONAS IN THE MANAGEMENT OF AMAVATA w.s.r to RHEUMATOID ARTHRITIS – A CASE REPORT

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### Abstract:

As per the texts of Ayurveda, origin of this disease is from Ama – the undigested/ Incompletely metabolized metabolic products. Consumption of Incompatible food and improper physical activities are said to play key roles in manifestation of Amavata. Main features are said to be joint swelling with pain and deformity in chronic stages. Rheumatoid arthritis is a chronic systemic autoimmune inflammatory disease that is seen more frequently in females than males. Concerns regarding the safety and expenditure of conventional arthritis therapies have given emphasis on usage of natural remedies. Therefore, here we report a case of Chronic RA which was successfully managed by Ayurvedic interventions only. On assessment of *Nidanas*, vitiation observed was *SamaVata* and *SamaPitta*. *Dushyas* involved were *Rasa*, *Rakta*, *Asthi*, and *Manas*. *Sanga* was the *Srotodushti prakara*. Ayurvedic interventions like *Rukshana*, *Langhana*, *Snehana* and *Rasayana* were administered. Patient had significant improvement in the complaints and during a follow-up of 6 months, disease did not aggravate and Quality of Life was significantly improved.

**Key Words:** Ayurveda, Amavata, Rheumatoid Arthritis, Auto-immune Disease, Panchakarma.

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## INTRODUCTION:

*Amavata* is one of the disorders mentioned in *Brihatrayee*, but no complete description about the disease is explained in the great 3 texts of Ayurveda. First complete description of this disease came from *Madhava Nidana*. As per the texts of Ayurveda, origin of this disease is from *Ama* – the undigested/ Incompletely metabolized metabolic products. It occurs due to vitiation of *Kapha* and *Vata* dosha in areas of *Kapha dosha*, mainly Joints. Consumption of Incompatible food and improper physical activities are said to play key roles in manifestation of *Amavata*. Main features are said to be joint swelling with pain and deformity in chronic stages. *Amavata* closely simulates Rheumatoid Arthritis and its complications.

Rheumatoid arthritis (RA) is a chronic systemic autoimmune inflammatory disease that is seen more frequently in females than males, being predominantly seen in the elderly people. The prevalence rate as per 2002 ranged from 0.5% to 1% and had regional variation. RA primarily affects the lining of the synovial joints and bone surfaces and can cause progressive disability, deformity, socioeconomic burdens and premature death. The clinical manifestations include symmetrical joint involvement with pain, swelling, redness, and reduced range of motion. Early diagnosis is considered as key for getting the most desirable outcomes (i.e., reduced joint destruction, less radiologic progression, no functional disability, and early remission) and effective cost management, as the first 12 weeks after the onset of early symptoms is regarded as the optimal therapeutic window (1). The environment acts as a triggering factor for production of antibodies for citrullinated proteins and the epigenetic regulation combines environmental factors with infections and genes playing key role. Gene to environment interaction influences the reactivity of autoantibodies to citrullinated antigens (2). Conventional RA treatment involves risk of numerous and severe side effects including oral ulcers, nausea, dyspepsia being commonest ones. DMARD are associated with low compliance by patients, i.e a 16% discontinuation rate was seen due to adverse side effects. Most commonly reported ones being diarrhea, nausea, headache, rash, itching, loss of hair and body weight, hypertension, chest pain, palpitation, infection, and liver failure (3).

Concerns regarding the safety and costs of conventional therapies have kindle interest and

emphasised the importance of natural remedies. In addition, difficulty in managing chronic pain in RA has led to the test and usage of herbal therapies. Herbs may offer a alternative way for effective and safe management of RA. It is thus important to manage this grave disease with Ayurvedic interventions with less or no side effects (4).

## CASE DESCRIPTION:

58-year-old female patient visited OPD and complained of pain and swelling in all major joints including bilateral shoulder joints, elbow joints, knee joints, ankles and minor joints such as Metacarpophalangeal joints, Interphalangeal joints of both the hands since 10 years.

Initially 10 years back, pain was noticed 1<sup>st</sup> at left wrist joint associated with mild pain. Patient neglected it and condition was not treated. Later when condition aggravated, she took some analgesic medicines which was not much helpful. Patient had also started with complaints of repeated onset of Fever at night and vomiting with reduced appetite for 1 year. Patient also had history of repeated episodes of Typhoid fever since last 1 year. Patient had attained early menopause at the age of 38 with obstetric history of G7P7L5D2. She had a history of Puerperal Psychosis during her 4<sup>th</sup> delivery.

Vitals were stable with BP at 120/70 mmhg, Pulse at 81/min, Respiratory rate at 20/min. On general examination Mild pallor was noticed along with swelling in all the major and minor joints. Patient had irregular bowels and *Nadi (Pulse)* was found to be dominant with *VataPitta dosha*.

On 10-fold examination, *Prakriti* of patient is *Vata-Pitta*, *Vikriti* (Derangement) is *Vata-Pitta*, *Avara* (Low) *Sara* (Excellency of Dhatus), *Satwa* (Menatl status), *Samhanana* (Body compactness), *Madhyama Satmya*, *Ahara*, and *Vyayama shakti* (Physical endurance) was *avara*.

Abnormalities was detected in Locomotory system (**Table 1**) and all other systems had no abnormalities. On examination patient had developed Swan Neck deformity in 2<sup>nd</sup> and 1<sup>st</sup> finger of both the hands. Boutonniere deformity in 3<sup>rd</sup> and 4<sup>th</sup> finger. Valgus deformity was seen in bilateral wrist joints. Patient was unable to perform some of the actions to confirm the tests like Empty can, Phalen,s, Apley's scratch, due to pain.

On investigations, Haemoglobin was 9.9 g%, ESR 29 mmhr, Serum Uric acid 6.58 and RA factor and CRP was positive.

**Table 1 - EXAMINATION AND ASSESSMENT CRITERIA**

SL NO	CRITERIA	BEFORE TREATMENT SCORE		AFTER TREATMENT SCORE	
<b>1</b>	<b>DAS28 SCORE – DISEASE ACTIVITY SCALE</b>				
	Tender joints	28		14	
	Swollen joints	24		18	
	ESR	29		20	
	CRP	10		9	
	PATIENT GLOBAL HEALTH	9		6	
	<b>TOTAL SCORE</b>	6.69 (High disease activity)		3.5 (Mild activity)	
<b>2</b>	<b>HEALTH ASSESMENT QUESTIONNAIRE DI</b>				
	Dressing and grooming - 3	3		2	
	Arising - 3	3		1	
	Eating - 3	3		1	
	Walking - 3	3		2	
	Hygiene - 3	3		2	
	Reach - 3	3		2	
	Grip – 3	3		1	
	<b>TOTAL SCORE</b>	27/30 (High disease Activity)		13/30 (Moderate activity)	
<b>3</b>	<b>EULAR CRITERIA SCORE FOR RA</b>				
	Joint involvement	5		3	
	Serology	2		1	
	Acute Phase reactors	1		1	
	Duration	1		1	
	<b>TOTAL SCORE</b>	9/10 (High)		6/10 (Moderate)	
<b>4</b>	<b>JOINT EXAMINATION</b>	Rt	Lt	Rt	Lt
	Swelling	2+	3+	1+	2+
	Temperature	1+	2+	-	-
	Crepitus	-	-	-	-
	Tenderness	1+	2+	1+	1+
<b>5</b>	<b>AMAVATA LAXANAS</b>				
	Angamarda	2+		1+	
	Aruchi	2+		1+	
	Trishna	1+		-	
	Alasya	1+		-	
	Gaurava	1+		1+	
	Jwara	2+		-	
	Apaka	1+		-	
	Shunanga	3+		1+	

### DISCUSSION:

On assessment of aetiologies taken by the patient, Intake of *Mithyahara* (Improper diet) like *Paryushita ahara* (Food of previous night), *Viruddha ahara* (incompatible food), having *Vishama Prasuta* (Complications during parturition), *Avara Satwa* (Low mental strength) might have contributed in manifestation and progression of the disease. Due to these aetiologies, vitiation observed was in *SamaVata* and *SamaPitta*. Tissues involved were *Rasa* (Lymph), *Rakta* (Blood), *Asthi* (Bone), and *Manas* (Mind). Obstruction was the type of *Srotodushti*, where Ama would be blocking the channels of *Rasa* and *Rakta* and taking seat in joints. Patient also had the history of Puerperal Psychosis and

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disturbed sleep which suggest the Poor mental status. By all these examinations, condition was diagnosed as *Pravridha AMAVATA*. Based on serological investigations and presentations, she was previously diagnosed with Rheumatoid Arthritis. Management criteria was based on *Chikitsasutra* by *Yogaratanakara* and *Chakradutta*, including *Rukshana* (Drying), *Snehana* (Lipid consumption), *Basti* (Enema). *Shiro Thalam* was advised for all 14 days with *Kalyanaka Ghrita* + *Kachuradi churna* considering the anxious mental status of the patient. Presence of swelling over all the major and minor joints suggested the presence of Ama even though it was a chronic case of 10 years. Therefore, initially *Rukshana* therapies were started until the

*Pachana* (Pro-digestive therapies) of *Ama* and reduction in swelling was seen (Antiinflammatory). The anti-arthritic activities of herbs are postulated to be by inhibition of proinflammatory and pro-catabolic mediators like cytokines, PGE2, MMPs, ROS, apoptotic proteins via pathways (NF- $\kappa$ B, RANKL, and PI3K/Akt) (4).

*Rukshana* therapies done were mainly targeted to remove excess amount of *Sneha* and *Kleda*. These modalities are said to bring absorption, digestion and emaciation and thereby bringing lightness to the *Dhatu*s. In this case of *Amavata*, *Rukshana* was done both externally and internally. Details of external therapies done are given in **Table 2 and 3**. Externally it was done with *Kottamchukkadi Churna* and *Jatamayadi churna* which has *Ushna*, *Ruksha*, *Tikshna dravyas* like *Shunti*, *Lashuna*, *Shigru*, *Chincha*, *Vacha* etc. Initially for 3 days internal *Rukshana* was done with *Musta* + *Panchakola Churna* and *Sanjivani vati* which reduced the swelling, malaise, heaviness in body and improved the appetite. Chief ingredients of all the medicines used for *Dipana-pachana* and formulations of *Amavata* include *Trikatu*, *Lashuna*, *Musta* etc. The isolated compounds from *Musta* was screened for anti-inflammatory action. 1<sup>st</sup> compound displayed the highest inhibitory activity of PGE2, COX-2, and LOX-5 with IC<sub>50</sub>s 0.22, 1.03, and 1.37  $\mu$ M, respectively compared to indomethacin (IC<sub>50</sub>s 0.15, 0.69, and 0.81  $\mu$ M, respectively). 2<sup>nd</sup> compound demonstrated significant activity with IC<sub>50</sub>s 0.57 (PGE2), 1.74 (COX-2) and 2.03 (LOX-5) Mm (5). Gingerol, shogaol, and other structurally related substances in *Shunti* inhibits prostaglandin and leukotriene biosynthesis through suppression of 5-lipoxygenase or prostaglandin synthetase. Additionally, it can inhibit synthesis of pro-inflammatory cytokines such as IL-1, Tumor Necrosis Factor- $\alpha$ , and Interleukin-8 (6). Garlic is said to improve the functioning of the immune system by stimulating macrophages, lymphocytes, natural killer cells, dendritic cells, and eosinophils, by mechanisms including modulation of cytokine secretion, immunoglobulin production,

phagocytosis, and macrophage activation (7). *Syp Amritarishta* was administered in order to bring *Pachana* and to bring down the fever and malaise. By the end of *Rukshana* therapies swelling was reduced by 80%, feeling of feverishness got reduced, nausea and vomiting were completely absent, and Pain persisted. It was followed by *Snehapana* and *Virechana* from 613<sup>th</sup> days. Pain got mildly reduced after *Virechana*. Details of list of medications are given in **Table 4**. Other oral medicines like *Simhanad Guggulu* with *Eranda taila* as chief ingredient was given which acts as *Srotoshodhaka* (Channel clearing), *Agnivardhaka* (Improve digestive metabolism), *Bhedaka*. *Rasnasaptaka kwatha* contains *Guduci*, *Gokshura*, *Punarnava* which helps to reduce swelling and fever. At the end, combination of *Ashwagandha*, *Godanti* and *Panchakola churna* was advised for maintenance and as disease specific *Rasayana* (Rejuvenative). At the end of treatment swelling was completely reduced, pain in joints reduced from all the joints to some minor joints like DIP joints. There was significant improvement seen in QOL and post treatment follow-up showed no progression in disease for 6 months.

#### CONCLUSION:

*AMAVATA* is a chronic, extremely painful condition affecting mostly female population. Affected sites involve major and minor joints. Current case is being presented because it was a chronic case of 10 years with multiple deformed fingers and toes who was on Analgesic medicine, which was completely managed by Ayurvedic interventions based on *Chikitsa* sutras of Ayurveda like *Rukshana*, *Snehana* and *Rasayana*. During the period of treatment and during follow up of 6 months, patient did not feel the need to take the analgesic tablets. Patient's quality of life improved considerably and disease activity index also showed much improvement in disease symptoms. This report may be helpful for other scholars to refer regarding the management of Rheumatoid Arthritis, its complications and other Auto Immune Disorders.

**Table 2 - THERAPIES DONE**

Sl No	Therapies	Medicine used	No of Days
1	Valuka Sweda	Ushna Valuka	1-3 days
2	Ruksha Churna Pinda Sweda	Kottamchukkadi Churna	4-9 days
3	Upanaha	Jatamayadi Churna	4-14 days

**Table 3 - SNEHAPANA and VIRECHANA**

Sl No	Therapies	Medicine used	No of Days1
1	Snehapana	Tiktaka Ghrita (Total 430 ml)	6-10 days
2	Abhyanga and Bashpa Sweda	Murchita taila	11-12 days
3	Virechana (Madhyama shuddhi with 16 vegas)	Trivrit Avaleha 40gm, Triphala Kwatha 50 ml	13 <sup>th</sup> day
4	Vaitarana Basti	Chincha Guda Gomutra Nirgundi Taila Saindhava Lavana	18-24 days

**Table 4 - LIST OF ORAL MEDICATIONS INITIALLY FOR 3 DAYS**

Sl No	Medication	Dose	Duration	Anupana
1	Musta Churna – 3gm Panchakola Churna – 1gm	4gm	3 days	Hot water
2	Amritarishta	15ml	3 days	With equal amount of Warm water
3	Sanjivani Vati	500 mg BID	3 days	Warm water

**For next 15 days**

Sl No	Medication	Dose	Duration	Anupana
1	Simhanada Guggulu	500mg, 2 tab, BID	21 DAYS	With Kwatha
2	Rasnasaptaka Kwatha	30ML TID	15 DAYS	NA
3	Sudarashana Ghana Vati	500mg, 1tab TID	15 DAYS	Warm water
4	Musta Churna – 2gm Ashwagandha Churna 2gm Panchakola Churna – 1gm Godanti Bhasma – 500mg	5gm	21 DAYS	Milk
5	Eranda Taila	5ml HS	15 DAYS	Warm water

**REFERENCES:**

- Qiang Guo,<sup>1,2</sup> Yuxiang Wang,<sup>1</sup> Dan Xu,<sup>2,3</sup> Johannes Nossent,<sup>3,4</sup> Nathan J. Pavlos,<sup>2</sup> and Jiake Xu. Rheumatoid arthritis: pathological mechanisms and modern pharmacologic therapies. *Bone Res.* 2018; 6: 15. doi: 10.1038/s41413-018-0016-9
- Diane van der Woude, Wendimagegn Ghidey Alemayehu, Willem Verduijn, René R P de Vries, Jeanine J Houwing-Duistermaat, Tom W J Huizinga, René E M Toes. Gene-environment interaction influences the reactivity of autoantibodies to citrullinated antigens in rheumatoid arthritis. *Nat Genet.* doi: 10.1038/ng1010-814.
- Kalden, J. R. et al. The efficacy and safety of leflunomide in patients with active rheumatoid arthritis: a five-year followup study. *Arthritis Rheum.* 48, 1513–1520 (2003)
- Breanna N. Lindler,<sup>†</sup> Katelyn E. Long,<sup>†</sup> Nancy A. Taylor, and Wei Lei. Use of Herbal Medications for Treatment of Osteoarthritis and Rheumatoid Arthritis. *Medicines (Basel).* 2020 Nov; 7(11): 67. Published online 2020 Oct 28. doi: 10.3390/medicines7110067
- Sabrin Ragab Mohamed-Ibrahim <sup>1</sup>, Gamal Abdallah Mohamed <sup>2</sup>, Maan Talaat Abdullah Khayat <sup>3</sup>, Mohamed Fathalla Zayed <sup>4</sup>, Amal Abd-Elmoneim Soliman ElKholy · Anti-inflammatory terpenoids from *Cyperus rotundus* rhizomes. *Pak J Pharm Sci.* 2018 Jul;31(4(Supplementary)):1449-1456.
- Nafiseh Shokri Mashhadi, Reza Ghiasvand,<sup>1,2</sup> Gholamreza Askari,<sup>1,2</sup> Mitra Hariri,<sup>1,2</sup> Leila Darvishi,<sup>1,2</sup> and Mohammad Reza Mofid. Anti-Oxidative and AntiInflammatory Effects of Ginger in Health and Physical Activity: Review of Current Evidence. *Int J Prev Med.* 2013 Apr; 4(Suppl 1): S36–S42.
- Rodrigo Arreola,<sup>1,\*</sup> Saray Quintero-Fabián,<sup>2</sup> Rocío Ivette López-Roa,<sup>3</sup> Enrique Octavio Flores-Gutiérrez,<sup>4</sup> Juan Pablo Reyes-Grajeda,<sup>5</sup> Lucrecia Carrera-Quintanar,<sup>6</sup> and Daniel Ortuño-Sahagún. Immunomodulation and AntiInflammatory Effects of Garlic Compounds. *J Immunol Res.* 2015; 2015: 401630. Published online 2015 Apr 19. doi: 10.1155/2015/401630