

Case Report

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Ayurvedic management of gouty arthritis: A case report

Aswathi Rajan V.K.¹, Devipriya Soman², Mahesh C. Kundagol³, James Chacko⁴

- 1 P.G. Scholar, Department of Kayachikitsa, Amrita School of Ayurveda, Kollam, Kerala 6090525, India
- 2 Assistant Professor, Department of Kayachikitsa, Amrita School of Ayurveda, Kollam, Kerala 6090525, India
- 3 Associate Professor, Department of Kayachikitsa, Amrita School of Ayurveda, Kollam, Kerala 6090525, India
- 4 Guide: Professor& HOD, Department of Kayachikitsa, Amrita school of Ayurveda, Kollam, Kerala 6090525, India

ABSTRACT

Gout is a metabolic disease which occurs as a result of pathological reaction of the joint or periarticular tissues due to the presence of Monosodium Urate (MSU) and Monohydrate crystals in the body. MSU crystals mostly deposited in connective tissues in and around joints or in soft tissues like cartilages at various parts of the body. Hyperuricemia is the cardinal abnormality leading to Gout. These days its prevalence is increasing due to changes in life style and therefore it has a noteworthy impact on the working population, their work, productivity and physical function. Gouty arthritis is conventionally managed by analgesics, anti-inflammatory drugs, Glucocorticoids, Uric Acid lowering therapy, Xanthine oxidase inhibitor and Uricosurics drugs. These drugs may be poorly tolerated and dangerous in the elderly and in the presence of renal insufficiency and gastrointestinal disorders. Based on the symptomatology, Gouty Arthritis can be well correlated to *Vata-Pitthadhika Vatarakta*. *Vata* and *Rakta* are the main factors involved in this disease and *sandhi* or joints are the main site of manifestation. The patient was treated with *Snehana* (oleation), *Mridu Swedana* (mild sudation) followed by *Ksheera Vasthi* (enema with medicated milk) in 7 days schedule. *Upanaha Sweda* (poultice) for 7days and *Samana Aushadhi* (oral Ayurvedic drugs) for one month. Substantial clinical improvement was reported in quality of life after 30 days of the treatment. This case report provides guidelines that Gouty arthritis with a very high serum uric acid can be treated as per Vataraktha Chikitsa Siddhanta in Ayurveda.

Keywords: Vatarakta, Gouty Arthritis, Bruhat guduchi taila Ksheera Vasti, Serum Uric Acid, Punarnnava Guggulu.

INTRODUCTION

Gout is a heterogeneous group of diseases characterized by hyperuricemia. Acute synovitis, chronic erosive and deforming arthritis, tophi, nephrolithiasis and interstitial nephritis are the major clinical presentations. Mean serum uric acid (urate) concentrations are age and sex related. The term hyperuricaemia denotes values above 7.0 mg/dL in males and 6.0 mg/dL in females. Gout is seen in only one-tenth of patients of hyperuricaemia. The big toe [first metatarsophalangeal joint (MTP)] is the classic site for gout. One-third of patients may get their first attack at another site such as the in-step of the foot, ankle, knee or hand joints. Sydenham's classic description lists the important clinical characteristics used to diagnose a typical attack. The attack is acute, it starts in the night, the joint and surrounding tissues are red, hot, swollen and extremely painful. This may be associated with fever and other constitutional disturbances.

Gout is found to have increased prevalence in recent years. Gout is seen predominantly in men during middle life. The male female ratio is 7:1 to 9:1. [1]. Conventional treatment of the disease includes analgesics, anti-inflammatory drugs such as non-steroidal anti-inflammatory drugs (NSAIDs), Colchicines, Uric Acid lowering therapy, Xanthine oxidase inhibitor, and Uricosurics drugs.

Gouty Arthritis of contemporary medical science, by its similarity in symptoms and etiological factors, can be correlated to Vatapittadhika Vatarakta [2], characterized by the symptoms like Sandhi Shula (joint pain), Sopha (swelling), Raga (Erythema), Sparshasahatva (Extreme tenderness in affected joints) and Stambha (Joint stiffness). So, it can be correlated to Gouty Arthritis. Various modalities of treatment for Vatarakta have good outcome. Highly praised treatment modality includes Vasti karma in Vatarakta. According to Charakaacharya there is no therapeutic measure comparable to Vasti for the cure of Vatarakta.Still vasti karma treatment has got some edge over all other modalities in terms of relieving the symptoms early, modifying the underlying pathology and also reducing the duration of treatment. Importantly it can bring down the disease severity. So Vasti karma specially *Bruhat guduchi taila siddha ksheera vasti* is said to be a drugless therapy which is a simple, specialized technique, effacious yet not popular. In varied degrees, it is curative but more stressed on relieving the symptomatology.

*Corresponding author: *Aswathi Rajan V.K.*

P.G. Scholar, Department of Kayachikitsa, Amrita School of Ayurveda, Kollam, Kerala – 6090525 India

Email: aswathiin[at]gmail.com

The major objectives in gout management are to keep the serum uric acid level towards normal and to prevent joint damage due to hyperuricemia. So, in order to find a better Ayurvedic management with a combination of Snehana in the form of Sarvanga Abhyanga with Bruhat Guduchi taila [3], Swedana in the form of Upanaha with Jatamayadi Choorna [4], Ksheera vasthi [5] and Samana aushadhi (Vatsaadaani kashaya [6] and Punarnava Guggulu [7] is taken up as a line of management.

CASE REPORT

The case study discussed here is about a 46 years old, moderately fit, female patient consulted the Kayachikitsa (OPD) of Amrita Ayurveda Hospital, Kollam, Kerala on 11 April 2018 with complaints of Sandhi Vedana (multiple joint pain), Sandhi Sodha (joint swelling), Raga & Daha in sandhi (redness and warmth over joints) for 2 years and with associated complaints of Daurbalya (weakness), Ushnabitaapa (heat intolerance), Nidraalpata (reduced sleep) for 1 year.

During the examination, the patient revealed that she was absolutely normal 2 years back and some time back she started experiencing pain and swelling in joints of the different parts of the body. The pain on joints gradually developed to an unbearable stage and that forced her to consult their family physician on urgent basis. The physician had given suggested her to go for medication and which could give her a temporary relief of 3 months. Severe pain characterized by recurrent attacks of red, tender, hot and swollen joint was noticed. General weakness and reduced sleep were the associated symptoms, for which the patient again consulted her family physician, and was treated for 8 months, but did not get relief. Hence, the patient consulted a Rheumatologist, where the patient was diagnosed with "Acute Gouty Arthritis" through hematological and clinical examinations. The patient was on conservative treatment for 6 months, and found symptomatic relief.

Patient history: Patient was non-vegetarian with reduced appetite even though she had a regular habit of intake of homemade food. Her bowel movements were normal and frequency of micturition 5–6 times per day and had disturbed sleep. No allergies or addictions were reported.

The menstrual history is 30-day regular cycle for 4–5 days of heavy flow.

The general examination of the patient showed pallor in conjunctiva and nails.

Observed data: Pulse rate: 72/min, Respiratory rate: 18/min, Blood pressure: 120/70mm of Hg and body weight: 65kg.

Musculoskeletal examinations showed restricted range of movements.

Table 1: Blood Reports

HAEMATOLOGY	VALUE
Hb	11.6g/dL
Total WBC Count	9400 cells/cu mm
Neutrophils	64%
Eosinophils	4%
basophils	0%
Monocyte	1%
Lymphocyte	30%
ESR	63mm/1hr
Serum Uric Acid	10.2 mg/dL
RA Factor	3.0 IU/ml

Diagnosis

Patient is diagnosed as per 2015 ACR/EULAR Gout Classification Criteria [8]

Based on the clinical presentation (pain and swelling she developed difficulty in walking) with an increased ESR level of 63 mm/1hr and serum uric acid level of 10.2 mg/dl the patient was diagnosed as a case of *Acute Gouty Arthritis*.

In consideration with the findings of clinical examinations & investigations following treatments was given as table No:2

Table 2: Treatment Schedule

S.No.	Treatment	Dose	Duration
1	Vatsaadhani Kashaya	50ml-0-50ml;	30 days
		Before food	
2	Punarnnava Guggulu	500mg BD;	30 days
		Before food	
3	Sarvanga Abhyanga with Bruhat Guduchi	100ml (40min)	7 days
	Taila and Mrudu Sweda in the form of	, ,	•
	Ushnambu Snana		
4	Bruhat Guduchi Taila Siddha Ksheera Vasti	500ml	7 days
5	Jadamayadi Upanaha Sweda		7 days

The medicines were procured from the inpatient dispensing section, Amrita Ayurveda hospital, where *Vatsaadhani kashaaya churna* and *Punarnnava Guggulu* manufactured from GMP certified pharmacy.

The patient was advised to continue oral medicines for one month at the time of discharge.

No concomitant medication was given during whole treatment period. For assessment, symptoms of Vatapittadhika Vatarakta and core sets of Assessment of Arthritis were used.

Criteria for assessment-Subjective & Objective)-Table 3 (a, b, & c):

3(a): Tenderness:

Grade	Tenderness
0	No tenderness
1	Mild tenderness on palpation
2	Mild tenderness with grimace
3	Severe tenderness with withdrawal

3(b): Visual analogue scale (0-10 Scale)

Grade	
0	No pain
1-3	Mild pain
4-7	Moderate pain
8-10	Severe pain

3(c): Criteria for assessment-objective

Objective criteria	
Hb	
ESR	
Serum Uric Acid	

RESULTS

Follow up and outcomes

Follow-up was taken after 1 month.

Hematological parameters were reinvestigated on 27 May 2018. Very good response was noted after the completion of therapeutic interventions. Reduction in symptoms like severe joint pain, stiffness, fatigue along with Acute phase reactants (ESR) and Serum Uric Acid level were noticed. Overall functional capacity and general condition of the patient were improved with medication.

Criteria for assessment-Subjective & Objective-Table No 4(a& b):

4(A): Criteria for assessment-Objective:

Objective criteria		
	Before Treatment	After Treatment
Serum Uric Acid	10.2 mg/dL	3.7mg/dL
ESR	63mm/1hr	26mm/1hr
Hb	11.6g/dL	13.3g/dL

Table No 4(b):

SCREENING ASSESSMENT				
SUBJECTIVE CRITERIA (JOINT SYMPTOMS ASSESSMENT)				
	Before Treatment	After 7 days of IP Treatment	After 30 days of Treatment	
Joint Pain	Severe Joint Pain	Moderate Pain (Grade 4-7)	No Pain (Grade 0)	
Scoring Pattern: VAS Scale (0-10 scale)				
Tenderness	Severe tenderness with withdrawal	Mild tenderness on palpation (Grade 1)	No Tenderness (Grade 0)	
Erythema	Present	Reduced	Absent	
Swelling	Present	Reduced	Absent	
Stiffness	Present	Reduced	Absent	
Restricted Range of movements	Possible with severe pain	Possible with mild pain	Possible with normal limit	

DISCUSSION

This particular case was treated based on the Vatarakta line of management. Snehana (oleation), Swedana (sudation) followed by Ksheera Vasti (medicated enema) which was given for seven days along with Samanaushadhies (oral medicines). Bruhat Guduchi Taila Siddha Ksheera Vasti is having Tikta and Madhura Rasa (bitter and sweet taste) dominance along with usage of milk and Ghrita processed with Tikta Rasayukta dravyas are indicated in Vatapittadhika Vatarakta.

Acharya Charaka and Vagbhata documented, "Na hi vasti samam kincit Vatarakta chikitsitam" [9] (there is no other therapeutic measures equivalent to vasti in treating Vatarakta). Vasti is considered as Agrya Aushadha for Vata. So Vasti in the form of Ksheera vasti can be adopted as a line of management.

Jatamayadi Choorna is selected in this study for Upanaha Sweda (local poultice). Upanaha Sweda is one among the modality of swedana widely used in the management of inflammatory Arthritis, which is having Tridoshahara especially Vata-Pitta Samaka property and specially indicated for Sopha, Daha, Sula condition.

Most of the *Aushadhas is* having *Guduchi* as their Main ingredient. *Guduchi* (Tinospora cordifolia) is said as the Agrya (best) *Aushadhi* [10] for *Vatarakta*. It is proved to have anti-inflammatory [11] and anti-arthritic action [12]. Tinosporin (chemical constituent) is a natural diuretic agent which aid in the excretion of Serum Uric Acid. Tinosporin also possesses gastro protective activity which is a beneficial property while using it as an analgesic [13].

Punarnava Guggulu is selected in this study as one among the Samanaushadhi. The drugs mentioned in this yoga includes Vibhitaki, Danti and Trivrit having Pitta-Kaphahara properties while Vidanga and Sunti are Vata kapha hara and the remaining Haritaki, Pippali, Marica, Amrita, Amalaki all are Tridosha shamaka.

Most of the drugs shows a characteristic of Ushna Virya (hot potency)

with Laghu (easily digestable), Ruksha (dry) and Tikshna Guna, which helps in easy assimilation of drug in the body, whereas Sunti and Guduchi are Guru and Snigdha (oily), it is further desirable in this disease due to Vatahara action. The Vipaka of Haritaki, Vibhitaki, Amalaki, Amrita, Sunti and Pippali are Madhura vipaka which have Vata-Pitta Shamaka properties. Which helps in Samprapti vighatana in Vatarakta.

Drugs like -Haritaki is having a wide spectrum of pharmacological and medicinal activities like Anti-Inflammatory, Anti-Arthritic, Anti-Oxidant and free radical scavenging, Hepatoprotective, Gastrointestinal motility improving and antiulcerogenic, Antispasmodic Immunomodulatory actions [14]. Punarnava is having Anti-inflammatory and Diuretic action [15]. Punarnava speeds up the filtration process of kidney and flushes out the excessive fluids and other waste products. Trivrit [16] and Danti possess anti-inflammatory properties [17], Vidanga with its antioxidant property [18] brings out the regenerative changes in the deformed joints due to hyperuricemia induced Gout. Triphala works as a Xanthine Oxidase inhibitor $^{[19]}$ like Allopurinol which suppresses the production of Uric Acid. Vibitaki has Nephro-protective function [20] which retards the Urolithiasis and dissolves already formed stones in kidney while Amalaki has anti-inflammatory, analgesic, antipyretic, Gastroprotective, Hepatoprotective, Immunomodulatory and anti-oxidant properties [21] which help reducing the local and systemic inflammatory effects of Gout.

CONCLUSION

This case showed significant improvement during and after the combined therapeutic intervention. From the above case, it can be clearly concluded that Chikitsa mentioned in Vataraktha by Acharyas can clearly bring down the Symptoms as well as the serum uric acid level.

Patient Perspective

The patient was satisfied with the Ayurvedic management.

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