Case Report

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# Management of Hyperuricemia by Ayurveda Approach w.s.r. to Gout

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## **ABSTRACT**

Due to presence of Monosodium urate and Monohydrate crystals in body, certain chemical reaction occurs at joints or periarticular tissues in body characterized as Gout in modern science. Due to fault lifestyle including food habits, physical activity or work, prevalence of Gout is raising among population. Presence of deposition of uric acid and raise in level of uric acid is cardinal feature of Gout which is mostly managed by analgesic, glucocorticoids or other acid lowering therapies like xanthine oxidase inhibitor or uricosurics drugs.

On correlating with the sign and symptoms of Gouty arthritis, *Vata-Rakta* is *Vyadhi* mentioned similarly in Ayurveda literature, in which Vitiated *Vata* and *Rakta Dosha* both localized in multiple joints of body. A female patient with raised uric acid and mild edematous swelling at joints of upper and lower limb was treated with Ayurveda oral medication for initial 15 days which showed a dramatic improvement in level of uric acid along with reduction of swelling on joints. Uric acid lowered from 7.8 mg/dl to 2.4mg/dl in 15 days with only conservative management. Relief in complaints like pain and burning sensation got also reduced.

This case study provides us the guidelines to manage gouty arthritis as per Ayurveda Siddhant in effective and safer way

Keywords: Hyperuricemia, Ayurveda, Gout

#### INTRODUCTION

Gout, is a disease of heterogeneous group earlier known as disease of kings and kings of disease, it has a higher prevalence in individuals who has sedentary life style and faulty diet. Its chronic inflammatory disease recognized by synovitis, deforming arthritis, nephrolithiasis along with deposition of monosodium urate (MSU) monohydrate crystals deposition in the tissues. Gout is biochemically recognized by saturation of urate in extracellular fluids which can be rule out by hyperuricemia in blood circulation Values of mean serum uric acid or urate conc. is variable as per age and gender, however value exceeding more than

6.0mg/dL in females and 7.0mg/dL in males is considered as hyperuricemia.

As per recent studies prevalence of gout vary in different geographical area which ranges from <1% to 6.8% and an incidence of 0.58-2.89 per 1,000 person-years. Gout is more prevalent in Males then females<sup>3</sup>. Conventionally it is managed by anti-inflammatory drugs like NSAIDs, colchicine, uricosurics or uric acid lowering drugs, analgesics, and certain other drugs which on long term are having some adverse effects like gastritis, hepatitis, or renal disorders.

In Ayurveda Gout can be correlated with *Vata-Rakta*. As per Acharya Charaka vitiated *Vata* and *Rakta* get located in joints

of hands the feet initially then after spread to whole body<sup>4</sup> while Acharya Sushruta believed that it initially occurs in feet then spread to whole body like poison of scorpion "Akhora Vishamaeda." To more specific, characteristics like Sandhi Shula (joint pain), Sopha (swelling), Sparshasahatva (Erythema), (Extreme tenderness in affected joints) and Stambha (Joint stiffness) can be correlated with Vatapittadhika *Vatarakta*<sup>5</sup>. Ayurveda holds the effective and economical management of gout. It houses the multiple treatment modalities with very effective outcome, out of which is conservative management, through oral drugs. Other modalities include Snehana, Raktamokshana, Virechana, Basti and *Lepa*.

### **CASE STUDY**

A female patient of 35-year age visited to Shalya Tantra OPD of Nootan Ayurvedic Hospital, Visnagar having complaint of pain in multiple joints of upper and lower limb along with complaint of non-pitting edema over joints of lower legs since last 6 month. She also had associated complaint of burning micturition, malaise, and anorexia often.

On through history taking patient she revealed that she was completely asymptomatic before 6 months then she develops the complaint of pain and mid edema over joints of lower leg occasionally. With time she experienced constituently increase in pain in swelling over lower limbs which also being noticed on joints of upper limbs also. Gradually the pain reaches the higher intensity which was not bearable to her. This also created a major disturbance in her daily routine activities. In concern of that she visited nearby modern medicine

hospital, from where she had taken medicine but does not have any relief in complaints. Pain had reaches to much intense level along with tender, hot and raised swelling over joints. She also experienced mild fever along with disturbed sleep cycle. So, she visited here, where on investigating the patient, she was diagnosed with gouty arthritis.

Personal History: Patient was vegetarian with moderate appetite. Urine and stool frequency was normal. She was addictive of tea. No allergic or previous illness was reported. The menstrual history was also noted normal.

On examination she was having slight restricted movement of phalangeal joints of upper and lower limb, conjunctiva was slightly pallor.

Blood pressure – 124/76 mmHg Pulse rate – 78/min Respiratory rate – 16/min Temperature- 97<sup>0</sup> F Weight - 68Kg. Blood Reports- 03 Nov 2022

Table 1: Blood Reports

Table 1. Dioou Reports				
Liver Function Test				
Total Billirubin	0.49 mg/dl			
Direct Billirubin	0.18 mg/dl			
Indirect Billirubin	0.31 mg/dl			
Total protein				
S. Protein	6.57 gm/dl			
Albumin	3.84 gm/dl			
Globulin	2.73 gm/dl			
SGPT	35 u/l			
SGOT	27 u/l			
ALKPO4	69 IU/L			
Uric Acid	7.8 mg/dl			

Patients was diagnosed based on lab investigations [Table 1], sign, symptoms, and classification of 2015 ACR/EULAR RA. Based on diagnosis and findings below listed treatment protocol was planned.

**Table 2: Treatment Protocol** 

S.N.	Drug	Dose
1	Varunaadi Kwath	10gm BD before food
2	Chandrapraha vati	2 Tab BD before food
3	Aam Pachan Vati	2 Tab BD Before food
4	Guduchi Churan –2gm	5 gm Bd Before food
	Gokshura Churan – 3gm	-
5	Singahanad Gugglu	2-tab BD after food with like warm
		water

The medicines were procured from the outdoor patient dispensing counter from where all the medicines are availed by GMP certified pharmacy. Patient was advised to take medicine for 7 days as shown in Table [2]. On follow up it was noted that there was mild reduction of pain and swelling in joints of upper and lower limbs. She also gets some significant relief in burning micturition, she was asked to repeat the same medication for another 7 days then to undergo investigations again. On 15th day from initiation of treatment protocol, investigations were carried out and it was reported that the level of S. uric acid was significantly lowered to 2.4 mg/dl as shown in Pic [2]. Patient somehow not believed on reported so she goes for another test from different lab and confirmed the lowered value of S. Uric Acid to 2.52mg/dl. While complaints were also reduced significantly as shown in Table [3].

Table 3: Assessment of Therapy

Parameters	Before Treatment	After Treatment	
		7 <sup>th</sup> Day	15 <sup>th</sup> Day
Joint Pain	++++	++	+
Swelling	++	+	+
Redness	+	-	-
S. Uric acid	7.8 mg/dl	-	2.4 mg/dl

**FOLLOW- Up** – No any adverse effects or events noted during and after treatment protocol.

#### DISCUSSION

This case of *Vata-Rakta* was treated with the conservative approach which is a type of mentioned Chikitsa Samhitas. Approach to treat this case was on investigation reports based complaints of patient, in which a predecided treatment protocol was assigned for 15 days. Varunadi Kwath or Kashaya has proven effect of reduction of monocyte to macrophages differentiation. It has proven property of reduced production proinflammatory cytokines TNF-α and IL-1β in LPS-stimulated macrophages in vitro. In addition to these properties, it is better used in managing chronic inflammatory conditions and related disorders. 6 Singahnad

Guggulu possess properties like Vedana (analgesic), Rasayana Shamana Medhya (rejuvenation) and Karma. **Expresses** anti-arthritic activities preventing breakdown of connective tissue and by reducing permeability of capillaries. It also possesses the properties like Vata Amapachana Saman, Srotoshodhak properties helps to resolve pathogenesis of gouty arthritis. Due to Ushana Virya and Agnivriddhikara (~improves digestive fire) Guna with Tikta and Katu Rasa, it acts as antagonist to vitiation of *Dosha* hence inhibit the consequences of Vata-Rakta.7 Chandraprabha Vati helps in neutralizing the pH of urine by lowering the acidic content, which tends to excrete more acidic content out words and lower the blood uric acid level, hence also help in provide relief burning micturition.<sup>8</sup>.Guduchi Gokshura both act a rejuvenating drug which helps in generation of new tissues, reduce the inflammatory level. Gokshura is natural diuretic agent flush out the extra toxins like Uric acid and improve the excretory functionality of Kidneys. Guduchi is believed to be Agrya (best) drug of choice as per Acharya Charaka, it has antiinflammatory and anti-arthritic action<sup>9</sup>

### **CONCLUSION**

This case is indicative of the efficacy of Ayurveda treatment in Gout arthritis. Through Chikitsa mentioned Ayurveda Classics, there was reduction of complaints as well as improvement in uric acid level (lowering of Uric acid) in short period of treatment protocol as well during the follow up period also. Its efficacy was much more reliable than expected, without any adverse effect, to which patient satisfaction was also co-operated in this case.

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conflict of interest.

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