

A SMALL GROUP STUDY ON THE EVALUATION OF EFFECTS OF *SHATAVARI GHRITA* IN MANAGEMENT OF *VATARAKTA* W.S.R. TO GOUT

Dr. Sarika Yadav*¹ and Dr. Om Prakash Dadhich²

¹Assistant Professor, National College of Ayurveda, Hissar, Haryana, India-125121.

²H.O.D. & Professor, P.G. Department of Sharir Kriya, National Institute of Ayurveda,
Jaipur, Rajasthan, India-302002.

Article Received on
03 August 2017,

Revised on 23 August 2017,
Accepted on 13 Sept. 2017

DOI: 10.20959/wjpr201712-9644

*Corresponding Author

Dr. Sarika Yadav

Assistant Professor, National
College of Ayurveda, Hissar,
Haryana, India-125121.

ABSTRACT

Vatarakta (gout) is the most common form of inflammatory arthritis in men > 40 years of age worldwide. *Vatarakta* (gout) is the disease which involves both metabolic and functional impairment and is characterized by pain, stiffness, itching, burning sensation, altered coloration over joint space and especially involves small joints of hands and feet. The prevalence of gout varies between populations and is around 1%. Here in this study 15 patient of *Vatarakta* are randomly selected and assessed on the basis of sign and symptoms given in *Charak Samhita* as subjective criteria. Serum uric acid is assessed as

objective parameter. *Shatavari Ghrita* was given in dose of 10ml twice a day with milk for 30 days. After 30 days the subjective and objective parameters were compared. It provided extremely significant relief in *Sandhi Stabdhta*, very significant results in *Sandhi Shula* and *Sandhi Daha*, significant results in *Sandhi Sankoch*, *Sandhi Sotha* and *Sandhigata Daha*. *Sandhigata Kandu* and *Twak Vaivarnya* got not quite significant results and result on *Sandhi Vistara* was insignificant.

KEYWORDS: *Vatarakta*, gout, *Shatavari Ghrita*, *Sandhi Stabdhta*, *Shula*.

INTRODUCTION

Ayurveda is the unique science of the universe which is devoted to the well-being of living beings. *Ayurveda* being the *Upveda* of *Atharvaveda*, deals with the preservation of health, diagnosing the ill health and treating the diseased person. It is perhaps the oldest existing body of knowledge on the healing process. *Ayurveda* helps us to create and maintain the

diseased free body and mind. According to *Ayurveda* by *Swastha*(healthy) it is implied that the person who's *Dosha*, *Agni* & functions of *Dhatu* & *Mala* are in the state of equilibrium & who has cheerful mind, intellect & sense organs.

Vatarakta comes under the domain of *Vatavyadhi* and it mostly affects the extremities. The umbrella of *Vatarakta* in parlance with conventional medicine includes many conditions related to joint disorders of the extremities involving connective tissue disorders. The prevalence of gout varies between populations and is around 1% with strong male predominance. Reported prevalence of this arthritis is 2.0 to 2.6 per 1000 patients, usually between the age group of 25-50 years. Gout is the most common form of inflammatory arthritis in men > 40 years of age worldwide.^[1] Prevalence of gout and hyperuricaemia is increasing over the past few decades in response to a number of factors. It is characterized by severe pain, tenderness and inflammation in the joint space, hindered joint mobility, stiffness and discoloration of skin of the joint.^[2] In the *Ayurveda* literature it is emphasized that the etiological factors lead to the predominant morbidity of *Vata Dosha* and *Rakta Dhatu* and hence it is named as *Vatarakta*. The specific etiological factors of *Vata Dosa* and *Rakta Dhatu* separately lead to the morbidity of them with the involvement of *Raktamarga*.^[3] The pathology leads to *Stabdghata*, *Sankoch*, *Daha* and *Paka* in the joint space hence for alleviation of these features *Mridu Guna* can be used in form of various formulations.

Various systems of medicines come up with various remedies and therapeutic procedures like use of colchicine, NSAIDS, uricosuric drugs, or allopurinol etc. or surgical procedures. In spite of their therapeutic values, these procedures pose temporary relief, limitation and several health hazards on the body. Hence the present clinical study aims to evaluate the efficacy of *Shatavari Ghrita*^[4], mentioned as the preparation of choice in management of *Vatarakta*. Thus the present study was carried out with an aim to strike upon a better efficient *Shamana Yoga* for *Vatarakta*.

AIMS AND OBJECTIVES

- 1) To evaluate the therapeutic effects of *Shatavari Ghrita* in *Vatarakta*.
- 2) To evaluate the effect of *Shatavari Ghrita* in hyperurecemia.

MATERIALS AND METHODS

Source of data: The study was conducted over 15 clinically diagnosed patients of *Vatarakta* of OPD of *Arogyashala* N.I.A. Jaipur and SSBH Jaipur.

Intervention used in the study: *Shatavari Ghrita* were procured from National Institute of Ayurveda Pharmacy, Jaipur was administered orally in a dose of 10 ml with milk twice a day for 1 month.

Inclusion Criteria

- 1). Patients of either sex between the age gap of 16- 70yrs.
- 2). Patients having clinical sign & symptoms of *Vatarakta* as per classical *Ayurveda* literature.
- 3). Patients willing to sign the consent form.
- 4). Patients having chronicity less than one year.

Exclusion Criteria

- 1). Patients suffering from other joint diseases like OA, RA, psoriatic arthritis etc.
- 2). Patients suffering from any major diseases like DM, T.B. etc.
- 3). Patients suffering from severe systemic multiorgan syndromes.

Investigation: Serum Uric acid.

Criteria for Assessment

Most of the signs and symptoms of *Vatarakta* are subjective in nature, to give the results objectively and for statistical analysis scoring system have been adopted. In the present study, the scores given by symptom ranking scale were assessed. The assessment was done before starting the treatment and every follow up i.e. 15 days and at the completion of the treatment.

Subjective parameters

Table no. 1

PARAMETERS	FINDING	POINTS
Sandhi Shula (pain in joints)	Absence of <i>sandhishhula</i> / not tender	0
	Bearable <i>sandhishhula</i> / tender	1
	<i>Sandhishhula</i> which lightly hampers routine work / tender with wince response	2
	<i>Sandhishhula</i> which restricts routine work /tender, with wince and withdraw response	3
Sandhi Sankoch (range of motion)	Normal range of motion	0
	Normal range with pain	1
	Range reduced	2
	Absolute restricted movement	3
Sandhigata Kandu	Absence of <i>Kandu</i> (itching in joints)	0
	Itching in joints occasionally	1
	Itching persists but bearable	2

	Itching which irritates the patient	3
<i>Sandhisotha</i>	Absence of <i>Sandhisotha</i> / none	0
	Mild <i>Sandhisotha</i> /probable	1
	<i>Sandhisotha</i> hampering joint movement /definite swelling	2
	<i>Sandhisotha</i> which restricts joint movement /tense swelling	3
<i>Sandhidaha</i>	Absent	0
	Occasional	1
	Persistent but bearable	2
	Very much burning sensation, unbearable	3
<i>Sandhisatabdhta</i>	Absent	0
	Mild	1
	Hampers routine activity	2
	Restricts joint mobility	3
<i>SandhiPaka</i>	Absent	0
	Little which causes pinkish colour of skin	1
	<i>Paka</i> which causes redness of skin	2
	Unbearable <i>Paka</i> which causes redness of skin and tenderness	3
<i>Sandhitwak colour changes to Shyava, Rakta or Tamravarana</i>	<i>Samanya Twak Varna</i>	0
	Little <i>Twak Vivarnata</i> which subsides on its own	1
	Intermediate and persistent <i>Twak Vivarnata</i>	2
	Severe <i>Twak Vivaranta</i>	3
<i>SandhiVistara</i>	No <i>Sandhi Vistara</i> (no change in size of joint)	0
	Probable increase in size of joint	1
	Intermediate increase in size of joint	2
	Remarkable increase in size of joint	3

OBSERVATIONS AND RESULT

After completion of the therapy of *Shatavari Ghrita* for one month, its effect on the clinical features were observed as presented in table. Various observations made and results obtained were computed statistically using Graph Pad Instat. Software Version 3.10 to find out the significance of the values obtained and various conclusions were drawn. For nonparametric data **Wilcoxon matched-pairs signed ranks test** was used. While for Parametric data **Paired 't' Test** was used and results were Calculated.

Table no. 2: Effect of *Shatavari Ghrita* on Clinical Features in 15 Patients.

Symptoms	N	Mean				S.D.	S.E.	W	p	Result
		BT	AT	Diff.	% diff.					
<i>Sandhi Shula</i>	9	2.40	1.67	0.73	30.4	0.70	0.18	45	0.004	VS
<i>Sandhi Sankoch</i>	10	1.80	1.27	0.53	29.4	0.64	0.16	44	0.019	S
<i>Sandhigata Kandu</i>	5	0.67	0.33	0.33	49.2	0.49	0.13	15	0.06	NQS
<i>Sandhi Sotha</i>	9	1.27	0.80	0.47	37	0.64	0.16	35	0.039	S
<i>Sandhi Stabdhta</i>	13	2.0	1.00	1.00	50	0.53	0.14	91	0.0002	ES
<i>Sandhigata Daha</i>	8	0.93	0.4	0.53	57	0.52	0.13	36	0.0076	VS
<i>Sandhigata Paka</i>	7	0.80	0.07	0.73	91	0.88	0.23	28	0.0156	S
<i>Twak Vaivarnya</i>	5	1.07	0.73	0.33	30.8	0.49	0.13	15	0.06	NQS
<i>Sandhi Vistara</i>	2	0.60	0.47	0.13	3.6	0.35	0.09	3	0.5	NS

After completion of the therapy with *Shatavari Ghrita* for one month, the effect on clinical features was observed is presented in table. It provided extremely significant relief in *Sandhi Stabdhta*, very significant results in *Sandhi Shula* and *Sandhi Daha*, significant results in *Sandhi Sankoch*, *Sandhi Sotha* and *Sandhigata Daha*. *Sandhigata Kandu* and *Twak Vaivarnya* got not quite significant results and result on *Sandhi Vistara* was insignificant.

Table no. 3. Effect of *Shatavari Ghrita* on Serum Uric Acid Level.

Investigation	Mean diff.	S.D.	S.E.	t	p	Result
Uric acid	0.9533	1.034	0.2669	3.572	0.0031	VS

Effect on the laboratory parameter uric acid was observed is presented above in table. It provided very significant change in uric acid levels [$p < 0.0031$].

Table no. 4: Mode of action of *Shatavari Ghrita*.

	<i>Shatavari</i>	<i>Goghrita</i>
<i>Rasa</i>	<i>Madhura, Tikta</i>	<i>Madhura</i>
<i>Guna</i>	<i>Guru, Snigdha, Mridu</i>	<i>Guru, Snigdha, Mridu</i>
<i>Veerya</i>	<i>Shita</i>	<i>Shita</i>
<i>Vipak</i>	<i>Madhura</i>	<i>Madhura</i>
<i>Doshaghanata</i>	<i>Vatapittahara, Raktahara</i>	<i>Vata-Pitta Shaman</i>

Contents of *Shatavari Ghrita*: *Shatavari* and *Goghrita*.

Shatavari^[5] is *Madhura-Tikta Rasa Pradhan*, having *Guru, Snigdha and Mridu Guna, Sheeta Veerya, Madhura Vipaka* and having *Karma* like *Vata-Pitta-Ashra Nashan, Tridoshahara, Rasayan, Atisaar Nashan* etc.

Goghrita^[6] is *Madhura Rasa Pradhan*, having *Guru, Snigdha and Mridu Guna, Sheeta Veerya, Madhura Vipaka* and having *Karma* like *Vatapittahar, Vrnprasadan, Mridukar and Dahashaman* etc.

Table no. 5: Pharmacological properties of *Shatavari Ghrita*.

<i>Rasa</i>	<i>Madhura, Tikta,</i>
<i>Guna</i>	<i>Guru, Snigdha, Mridu</i>
<i>Veerya</i>	<i>Shita</i>
<i>Vipak</i>	<i>Madhura</i>
<i>Doshaghanata</i>	<i>Vata-Pittahar</i>
<i>Any</i>	<i>Dahaprashman, Vranaya, Rakta Prasad</i>

DISCUSSION

Vatarakta is a unique disorder among *Vatvyadhi* which has specific pathogenesis involving vitiation of *Rakta* and *Vata*. *Vatarakta* is caused by long term use of *Ahar* and *Vihar* which is *Vata Prakopaka* and *Rakta Prakopaka*. The vitiated *Vata* along with the vitiated *Rakta Dhatu* moves in the body and takes *Sthansamshraya* or resides in the *Padangushta Sandhi*. According to the description available in *Ayurvediya* texts, therapeutic effect of a drug depends on its pharmacological properties. In *Ayurveda* these pharmacological properties are described in the form of *Rasa*, *Guna*, *Veerya*, *Vipaka* and *Prabhava* of the drug. Here *Shatavari Ghrita* is chosen for its specific pharmacological properties which help in alleviation of sign and symptoms of *Vatarakta*.

Effect on *Sandhi Shula*: *Shula* is mainly due to *Vata Dosha*. *Madhur Rasa*, *madhur Vipak*, *Guru* and *Snigdha Guna* predominant properties led to *Vatashaman* and hence alleviate *Sandhi Shula*.

Effect on *Sandhi Sankoch*: *Sandhi Sankoch* is mainly due to vitiated *Vata* which is alleviated mainly by *Snigdha* and *Mridu* properties.

Effect on *Kandu*: *Kandu* is mainly due to *Kapha* and *Dushita Rakta*. *Tikta Rasa* is *Dosha* and *Rakta Prasadana*.

Effect on *Sandhi Sotha*: due to *Sothahar Prabhava*, *Tikta Rasa Pradhanta* in *Shatavari*.

Effect on *Sandhi Daha*: due to *Dahakar Karma*, due to *Madhur*, *Tikta*, *Kasaya Rasa*, due to *Mridu* and *Snigdha Guna* and due to *Shita Virya*.

Effect on *Sandhi Paka*: due to *Madhur*, *Tikta*, *Kasaya Rasa*, due to *Shita Virya* and due to *Mridu* and *Snigdha Guna*.

Effect on *Sandhi Stabdhta*: due to *Mridu* and *Snigdha Guna*.

Effect on *Twak Vaivarnya*: due to *Vrnya Prabhav*, *Tikta* and *Madhur Rasa* are *Vrnasprasadana*.

CONCLUSION

There are so many etiological factors like *Ahara*, *Vihara*, *Prakriti*, inheritance etc. for *Vatarakta*, but the key point is that any factor, which vitiates *Vata* and *Rakta* can lead to

Vatarakta. Based upon its signs and symptoms it can be correlated with gouty arthritis. The present study revealed that oral administration of *Shatavari Ghrita* led to remarkable relief in signs and symptoms of *Vatarakta* and also remarkably reduced the elevated serum uric acid levels. The therapy did not have any side effects. Thus it can be concluded that *Shatavari Ghrita* can be used as a reliable intervention in *Vatarakta*.

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