



Research Article

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A COMPARATIVE CLINICAL STUDY TO EVALUATE THE EFFECT OF VIRECHANA AND JALAUKAVACHARANA WITH SHAMANA AUSHADHI GORAKH MUNDI CHURANA AND GUDUCHI KWATH IN THE MANAGEMENT OF VATARAKTA WITH SPECIAL REFERENCE TO GOUT

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ABSTRACT

Vatarakta is one of the commonest lifestyle disorders mentioned as Vata pradhana tridoshaja vyadhi in Ayurvedic texts by various Acharyas. In Vatarakta, the imbalance of Vata dosha and Rakta dhatu produces complex symptoms like sandhishoola, sandhi shotha, raga, kandu, sparsh agyatva etc. Vatarakta can be understood clinically with gouty arthritis. Gout is a metabolic disorder and inflammatory response to the deposition of MSU (monosodium urate crystals) in joints secondary to hyperuricemia. It is characterized by episodic acute and chronic arthritis, i.e., red, hot, tender and swollen joints. Patients fulfilling the diagnostic and inclusion criteria were selected for the study from OPD/IPD of the Department of Panchakarma of Rajiv Gandhi Govt Post Graduate Ayurvedic College, Paprola, Paprola, Himachal Pradesh, India. The present clinical study was carried out in two groups. In group 1, Virechana was carried out; in group 2, Jalaukavacharana and shamana aushadhi, Gorakh mundi churana were given in both groups. Although there was no statistical difference in intergroup comparison, Virechana was slightly benignant over Jalaukavacharana in many parameters.

Keywords: Vatarakta, Virechana, Jalaukavacharana, Gorakh mundi churana, Guduchi kwath.

INTRODUCTION

Vatarakta has been described as Raktaja roga in Charaka Samhita Vidhishonita adhyaya¹ and devoted one chapter in Charaka chikitsa sthana. It has been described as a separate disease entity in Charaka Samhita. Acharya Sushruta has described Vatarakta in two chapters: Vatavyadhi (Nidansthana 1st chapter) and Maha Vatavyadhi (Chikitsa sthana 5th chapter). It has been mentioned in Charaka Samhita that asatamendriyarthasamyoga, pragyapradha and parinama (atiyoga, ayoga and mithyayoga) are prime factors for the genesis of all diseases². Different aaharaja, viharaja, mansika and agantuja nidana of Vatarakta have been mentioned in Ayurvedic texts. Acharya Charaka classified Vatarakta in two forms based on the involvement of dhatu, uttana Vatarakta (superficial, i.e., twak, mamsa aashrit) and gambhira Vatarakta (deep seated)³. Acharya Charaka has mentioned purva rupa such as svedoatyarthama na va (either excessive sweating or no sweating), karshnya (blackishness of skin), sparsa agyatva (intolerability), kshate atiruka (excruciating pain), sandhi shaithilya (loose joints), alasya (laziness), avasada (depression), pidikoudgama (eruptions), sandhi nistoda (painful joints), bheda (sharp pain), gurutvama (heaviness), shunyata (numbness), kandu (itching), vaivarnya (discolouration) and mandaloutpatti (round ringworm like eruptions). Acharya explained the symptoms of Vatarakta based on dhatu's involvement. According to Charaka Samhita, vitiated Vata and Rakta slowly affect the hands, feet, fingers, and other joints. Hands and feet are the sites of the first attack, and the whole body is affected by this disease⁴. According to Sushruta Samhita, the disease usually starts from the feet and sometimes from the hands and spreads to other parts of the body, similar to how rat poison spreads, i.e., "Akhora Vishamiva"⁵.

Gout is among one of the disorders of amino acid metabolism, i.e., purine metabolism. Gout is also called metabolic arthritis. Gout is a kind of crystal-induced arthritis that occurs when uric acid level builds up in the blood and causes joint inflammation. It is a metabolic disease characterized by episodic acute and chronic arthritis, i.e. red, hot, tender and swollen joints. It is an inflammatory response to MSU (monosodium urate) crystals formed secondary to hyperuricemia. Urate crystals are also deposited in the superficial layers of the articular cartilage. The clinical manifestations of Gout are described in four stages: Asymptomatic hyperuricemia, acute Gouty arthritis, intercritical Gout, and chronic tophaceous Gout⁶.

Aims and Objectives

- To compare Virechana and Jalaukavacharana's efficacy with shamana aushadhi's management of Vatarakta with special reference to Gout.
- To explore the Ayurvedic and modern literature pertaining to Vatarakta with special reference to Gout.
- To develop an effective Panchakarma therapy for the management of Vatarakta.

MATERIALS AND METHODS

Before the commencement of the study, an Ethical clearance certificate is obtained from the IEC. Patients of Vatarakta with special reference to Gout fulfilling the diagnostic and inclusion criteria irrespective of sex, caste and religion were registered from the OPD/IPD of the Department of Panchakarma, Rajiv Gandhi Govt Post Graduate Ayurvedic College, Paprola, Himachal

Pradesh, India. The study was carried out in two groups, and patients were randomly selected and divided into two groups.

Treatment protocol

The selected patients were randomly divided into two different groups.

Group A

1. Snehapana with Shatavari ghritha (for 3 to 7 days, depending upon the koshttha).
2. Sarvanga abhyanga with murchit Til taila followed by sarvang swedan.
3. Virechana karma with arun Trivrita kwath + Aargvadha phall majja churna.
4. Shamana aushadhi: Gorakhmundi churna 5 gm with Guduchi kwath 40 ml BD for one month.

Group B

1. Jalaukavacharana (three sitting at an interval of 7 days).
2. Shamana Aushadhi: Gorakhmundi churna 5 gm with Guduchi kwath 40 ml BD for one month.

Diagnostic Criteria

Diagnostic criteria were based on the signs and symptoms of Vatarakta with special reference to Gout described in Ayurvedic

and modern classics and Serum uric acid greater than 7 mg/dl in males and greater than 6.5 mg/dl in females.

Inclusion Criteria

1. Patient willing for study.
2. Patients between the age group of 20-70 years of either gender or religion
3. Patients who had classical signs and symptoms of Vatarakta.
4. Only uncomplicated cases of Vatarakta with special reference to Gout were taken.

Exclusion criteria

1. Patients not willing to the study.
2. Patient presenting with systemic complications like Ischemic Heart Disease, Uncontrolled Hypertension, Chronic Kidney Disease, Uncontrolled Diabetes Mellitus, and Liver disorders.
3. Patients below the age of 20 years and above 70 years.
4. Pregnancy.
5. Mentally unstable and substance abuse patients.

Criteria of Assessment

The patients were assessed subjectively and objectively based on cardinal signs and symptoms of the disease; all the signs and symptoms were given scoring depending on their severity as below:⁷

Subjective criteria

Sandhi Shoola	Joint Pain
Sandhi Shotha	Joint Swelling
Sparsh Ashayata	Tenderness
Raaga	Redness
Granthi	Tophi
Vidaha	Burning sensation
Kandu	Itching
Sandhi Vikriti	Deformity

Grading of Signs and Symptoms

Sign and Symptoms	Status	Grades
Sandhi Shoola (Joint pain)	No pain with work	0
	Mild, tolerable pain with work	1
	Moderate pain at rest	2
	Severe pain with work	3
Sandhi Shotha (Joint swelling)	No swelling	0
	Mild swelling	1
	Moderate swelling	2
	Severe swelling	3
Sparsh Asahyata (Tenderness)	No pain on palpation	0
	Mild pain on palpation	1
	Moderate pain	2
	Patient is not allowed to palpate	3
Raaga (Redness)	No redness	0
	Mild redness	1
	Moderate redness	2
	Severe redness	3
Vidaha (Burning sensation)	No burning sensation	0
	Mild burning sensation	1
	Moderate burning sensation	2
	Severe burning sensation	3
Granthi (Tophi formation)	No Tophi	0
	Tophi in Single-Joint	1
	Tophi in Multiple Joints	2
	Tophi in other sites with joints	3
Sparsh Agyatva (Numbness)	No numbness	0
	Mild numbness	1
	Moderate numbness	2
	Severe numbness	3
Kandu (Itching)	No itching	0
	Mild itching	1

	Moderate itching	2
	Severe itching	3
Sandhi Vikriti (Deformity)	No deformity	0
	Mild deformity	1
	Deformity up to 2-3 joints	2
	Deformity of more than 3 joints	3

Objective criteria: Serum uric acid was estimated before and after treatment.

VAS: A ten-point visual analogue scale was used to evaluate pain by taking 0 for no pain and 10 for the worst pain imaginable. VAS was also used for pain relief satisfaction by marking 0 as total dissatisfaction and 10 as complete satisfaction.⁸

Grade	Score	BT	AT
0 (No Pain)	0		
1 (Mild Pain)	1-3		
2 (Moderate Pain)	4-6		
3 (Severe Pain)	7-10		

BT: Before Treatment, AT: After Treatment

Statistical analysis of data

The data obtained in the clinical study before and after treatment was expressed in terms of Mean, Standard Deviation (SD), and Standard Error (SE).

For Objective Criteria

A paired t-test was applied to observe the significance between before and after treatment, and an unpaired t-test regarding intergroup comparison of drug effects was applied.

For Subjective Criteria

The Wilcoxon Signed rank test was applied to observe the result before and after treatment, and the Mann-Whitney U test was applied regarding intergroup comparison.

The obtained results were interpreted as:

Insignificant result: $p > 0.05$ and equal to 0.05

Significant: $p < 0.05$

Highly significant: $p < 0.001$

RESULT

The therapy effect was statistically significant in sandhi shoola, sandhi shotha, raaga, vidaha and kandu. Sandhi vikriti was seen in very few patients.

The effect of therapy was found to be statistically non-significant in sandhi vikriti.

The intergroup comparison of subjective data was statistically non-significant except for sandhi shoola, which was more significant in group 2.

The intergroup comparison of objective data (Serum uric acid and VAS scale) was non-significant, but group 1 showed 8.2% more relief in Serum uric acid and group 2 showed 5.2% more relief on the VAS scale.

The effect of therapy was highly significant on other laboratory investigations, but group 1 showed a statistically significant difference from group 2 during the intergroup comparison of laboratory investigations.

Effect of therapy on Subjective Parameter

Statistical analysis of the effect of Virechana and Shamana Aushadhi on Various Parameters of Vatarakta (Gout) in Group 1

Criteria	No.	Mean score		Mean Diff.	Percentage relief	SD	SE	Z	P	W	Significance
		BT	AT								
Sandhi Shoola	10	1.8	0.5	1.3	72.22	0.483	0.152	1.922	<0.05	-55	S
Sandhi Shotha	10	1	0.2	0.8	80.00	0.632	0.2	0.869	<0.05	-28	S
Sparsh Asahyata	10	1.9	0.9	1	52.63	0.471	0.149	0.675	<0.05	-45	S
Raaga	10	1.5	0.4	1.1	73.33	0.316	0.152	1.480	<0.05	-55	S
Vidaha	10	1.7	0.6	1.1	64.71	0.567	0.179	7.14	<0.05	-45	S
Granthi	10	1.7	1	0.7	41.17	0.483	0.152	0.477	<0.05	-38	S
Sparsh Agyatva	10	1.6	0.5	1.1	68.75	0.316	0.1	2.380	<0.05	-55	S
Kandu	10	1	0.2	0.8	80.00	0.632	0.2	-4.52	<0.05	-28	S
Sandhi Vikriti	10	0.4	0.3	0.1	25.00	0.316	0.1	-0.208	>0.05	-1	NS

BT: Before Treatment, AT: After Treatment, SD: Standard Deviation, SE: Standard Error

Effect of therapy on Subjective Parameter of Group 2

Statistical analysis on the effect of Jalaukavacharana and Shamana Aushadhi on Various Parameters of Vatarakta (Gout) in Group 2

Criteria	No.	Mean score		Mean Diff.	Percentage relief	SD	SE	Z	P	W	Significance
		BT	AT								
Sandhi Shoola	10	2.4	0.2	2.2	91.67	0.918	0.290	2.07	<0.05	-55	S
Sandhi Shotha		2.3	0.7	1.6	69.56	1.173	0.371	1.37	<0.05	-43	S
Sparsh Asahyata		1.6	0.8	0.8	50.00	0.788	0.249	0.69	>0.05	-36	NS
Raaga		1.9	0.8	1.1	57.89	0.316	0.1	1.29	<0.05	-55	S
Vidaha		1.9	0.8	1.1	57.89	0.567	0.179	1.34	<0.05	-45	S
Granthi		1.2	0.4	0.8	66.67	0.788	0.249	3.07	<0.05	-21	S
Sparsh Agyatva		1.5	0.6	0.8	53.33	0.421	0.133	2.0	<0.05	-36	S
Kandu		2	0.2	1.2	60.00	0.421	0.133	4.28	<0.05	-55	S
Sandhi Vikriti		0.6	0.2	0.4	16.66	0.316	0.1	4.28	>0.05	-10	NS

BT: Before Treatment, AT: After Treatment, SD: Standard Deviation, SE: Standard Error

Intergroup Comparison over Criteria of Assessment on Various Subjective Parameters

Criteria	No	Mean Group 1	Mean Group 2	Mean Diff.	Percentage Group 1	Percentage Group 2	Relief Diff. %	SD	SE	P	U
Sandhi Shoola	10	1.3	2.2	-0.9	72.22	91.67	19.45	1.05	0.33	<0.05	77.5
Sandhi Shotha	10	0.8	1.6	-0.8	80	69.56	10.44	1.01	0.32	>0.05	85
Sparash Asahyata	10	1	0.8	0.2	52.63	50	2.63	0.83	0.26	>0.05	110
Raaga	10	1.1	1.1	0	73.33	57.89	15.44	0.5	0.15	>0.05	105
Vidaha	10	1.1	1.1	0	64.71	57.89	6.82	0.83	0.26	>0.05	105
Granthi	10	0.7	0.8	-0.1	41.17	66.67	25.50	1.20	0.38	>0.05	110
Sparash Agyatva	10	1.1	0.8	0.3	68.75	53.33	15.42	0.5	0.15	>0.05	119
Kandu	10	0.8	1.2	-0.4	80	60	20.00	1.01	0.32	>0.05	88
Sandhi Vikriti	10	0.1	0.4	-0.3	25	16.66	8.34	0.5	0.15	>0.05	105

SD: Standard Deviation, SE: Standard Error

Effect of therapy on Objective Parameter

Effect of Therapy on Serum Uric Acid Group 1

Investigations	Mean score		Mean Diff.	Percentage Relief	SD	SE	't'	P	Results
	BT	AT							
Serum Uric Acid	7.58	5.65	1.930	25.46	1.273	0.402	4.792	<0.001	HS

BT: Before Treatment, AT: After Treatment, SD: Standard Deviation, SE: Standard Error

Effect of Therapy on Serum Uric Acid Group 2

Investigations	Mean score		Mean Diff.	Percentage Relief	SD	SE	't'	P	Results
	BT	AT							
Serum Uric Acid	7.3	6.04	1.26	17.26	0.763	0.241	5.220	<0.001	HS

BT: Before Treatment, AT: After Treatment, SD: Standard Deviation, SE: Standard Error

Inter-group Comparison of Serum Uric Acid

Investigations	Mean Score		Mean Diff.	Percentage Relief		Relief Diff. %	SD	SE	't'	P
	Group 1	Group 2		Group 1	Group 2					
Serum Uric Acid	1.930	1.260	0.67	25.46	17.26	8.2	1.34	0.42	1.427	>0.05

SD: Standard Deviation, SE: Standard Error

VAS Scale**VAS Scale Group 1**

Criteria	Mean score		Mean Diff.	Percentage Relief	SD	SE	t	P	Result
	BT	AT							
VAS	6.5	1.5	5	76.92	0.94	0.29	16.77	<0.001	HS

BT: Before Treatment, AT: After Treatment, SD: Standard Deviation, SE: Standard Error

VAS Scale Group 2

Criteria	Mean score		Mean Diff.	Percentage Relief	SD	SE	t	P	Result
	BT	AT							
VAS	6.1	1.2	4.9	80.32	0.737	0.233	21.0	<0.001	HS

BT: Before Treatment, AT: After Treatment, SD: Standard Deviation, SE: Standard Error

VAS Scale Intergroup Comparison

Criteria	Mean Score		Percentage Relief		Relief in diff. %	SD	SE	‘t’	p	Result
	Group 1	Group 2	Group 1	Group 2						
VAS	5	4.9	74.4	80.32	5.92	1.16	0.36	0	>0.05	NS

SD: Standard Deviation, SE: Standard Error

Overall Assessment: Group 1 and Group 2

Improvement	Percentage Relief in signs and symptoms	Number of Patients Group 1	Number of Patients Group 2
Marked improvement	76-99 %	Not Found	Not Found
Moderate improvement	51-75 %	7	8
Mild improvement	26-50 %	3	2
No/insignificant improvement	≤ 25 %	Not Found	Not Found
Deteriorated	Aggravation of symptoms	Not Found	Not Found

Panchakarma therapy is known for its prevention, curative, promotive and rejuvenating properties. In Ayurvedic texts, two types of treatment of Vatarakta are described: samanya chikitsa (general management) and vishishta chikitsa (specific therapy according to the classification of dosha). Samanya chikitsa is further divided into antah parimarjana chikitsa (shodhana and shamana) and baharparimarjana chikitsa (lepa, seka/ parisheka and abhyanga).⁹ The main treatment line in Ayurveda for all diseases is shodhana chikitsa. Shodhana chikitsa includes Vamana, Virechana, Basti, Nasya and Rakatamokshana.

According to Acharya Charaka, Virechana and Jalaukavacharana are indicated in Vatarakta Chikitsa because the main dushya in Vatarakta is Rakta. Rakta dhatu obstructs the path of vridhh Vayu. Vridhh obstructed Vata, which, in turn, vitiates the whole Rakta and manifests as Vatarakta. Virechana and Jalaukavacharana have Pitta nirharana properties, and Pitta and Rakta have an aashra-aashrayi alliance.¹⁰

DISCUSSION

Panchakarma therapy is one of the vital branches of Ayurveda; it has attracted the attention of people worldwide as it is a unique type of treatment of various chronic, autoimmune, hormonal, neurological and degenerative disorders where other systems of medicines have no satisfactory answer as well as equally beneficial for the promotion and preservation of health.¹¹

Vatarakta has been described as Raktaja roga in Charaka Samhita Vidhishonita adhyaya and Virechan, and Rakatmokshana is indicated in Raktaja roga by Acharya Charaka. Jalaukavacharana is one of the five types of Raktamokshana. According to the patient's condition, snigdha and ruksha Virechana are indicated in Vatarakta. Jalaukavacharana is shown according to the signs and symptoms.

Probable mode of action of Virechana karma

The properties of Virechana dravya are ushna, tikshna, sukshma, vyavayi, vikasi, etc., are mentioned in Ayurvedic classics which play a vital role in the mode of action of Virechana karma.¹²⁻¹³ Due to their vyavayi, vikasi, sukshma guna Virechana drugs reach the microchannels, and by its ushna, tikshna guna it scrapes out and liquefies morbid mala and compact dosha. In this way, Virechana drugs brings shakhagat mala to koshttha and consequently expels out from the body. Virechana drugs carry out the Virechana due to the prabhava (potency) of the drug rather than its above properties. No doubt these properties help to do so, but drugs should have that, prabhava. The drugs which are having jala and prithvi mahabhuta dominancy have a natural tendency to go downwards, and thus, they can assist in the induction of Virechana. If drugs have all the properties mentioned above but do not have Virechana prabhava, then they will not induce the Virechana. Hence, we can say drugs act by their active principle, which can be said as virya or prabhava, not by the property, but properties assist in carrying the function of the drug.¹⁴

Probable Mode of Action of Jalaukavacharana

Jalauka is sheeta in nature, so it usually applies in Pittaj and Raktaj vikara. Vatarakta is Raktaja roga so that it can be used in Vatarakta Jalauka can be used in those who are weak and fearful, i.e. sukumara individuals, and Vatarakta occurs in sukumara individuals. Jalauka first suck the impure blood from a distance up to one hashta pramana, then the pure blood. When the patient feels pricking pain and itching over the bite place, Jalauka should be removed.¹⁵

Selection of Arun Trivrita Kwath and Aargyadha Phall Majja

Trivrita used in Virechana balances Pitta-Kapha and reduces inflammation. Trivrita has rechana and bhedana karma and tikshana guna, which helps in the chedhana of dosha and mala, thus helps in Virechana karma. Arun Trivrita is sukhvirechaka and

is mainly used in sukumara individuals.¹⁶⁻¹⁷ As we know from nidana of Vatarakta, it predominantly occurs in sukumara individuals.¹⁸ So Trivrita was used for Virechana karma. Aargvadha is indicated in Vatarakta. Aaragavadha is the best mriduvirechaka drug due to its Vata Pitta shamaka and Pitta samshodhaka properties and acts as Raktashodhaka. Aaragavadha has guru guna, which helps in doshanirahana from adhomarga. Aaragavadha is also used in sukumara individuals and does not cause any complications.⁸

CONCLUSION

The study shows statistical indifference between the results of both groups; however, there is a slight edge of Virechana karma over Jalokavacharana in many parameters of Vatarakta stated earlier.

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