

CLINICAL STUDY TO EVALUATE THE THERAPEUTIC EFFECT OF YOGA BASTI (YASHTYAHVADI NIRUHA AND GUDUCHI SADHITA TAILA) AND BODHIBRIKSHA KASHYA IN A CASE OF VATARAKTA WITH SPECIAL REFERENCE TO GOUT

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ABSTRACT

'Vatarakta' (Gout) is a one type of *vatavyadhi*, caused due to *Vata* and *Rakta*. The main pathology of the disease is *Marga – Avaradh* (Obstruction of channels). Here *Vata* and *Rakta* are aggravated and vitiated by their etiological factors and ultimately *vayu* gets obstructed by vitiated *Rakta*. This complete process is known as *Vatarakta* (Gout). The etiology and symptomatology of Gout is very much similar to *vatarakta* (Gout). 'Gout' is a pathological reaction of joints or periarticular tissues which results from deposition of Monosodium urate Mono-hydrate crystals in joints and tissues. It is the commonest inflammatory joint disease in which mainly small joints become swollen, tender, painful and stiff. In the present clinical study, 40 patients fulfilling the diagnostic criteria of *vatarakta* (Gouty arthritis) were selected randomly from the OPD and IPD of I.P.G.A.E. &R. at S.V.S.P. Hospital, Kolkata and *Panchakarma* Department of J. B. Roy State Ayurvedic Medical College and Hospital, Kolkata. The patients were divided into 2 groups. Group–A (20 patients) were treated with *Bodhivriksha Kashay sevana* (intake of decoction of *Ficus religiosa* bark) for 45 days only and Group – B (20 patients) treated with *Yashtyahvadi Niruha* (A type of decoction enema in which *Glycyrrhiza glabra* is the main ingredient) along with *Guduchi taila* (Oil prepared by *Tinospora cordifolia*) in *yoga Basti* (special type of enema therapy) schedule followed by intake of *BodhiBriksha Kashay* (Decoction of *Ficus religiosa* bark) for 45 days. After administration of this therapy, it is found that both groups show significant results. In Group–A, one patient showed moderate improvement (5%), 19 patients showed marked improvement. In Group–B patients, one patient (7.69%) showed mild improvement, 3 patients showed Moderate improvement (23.07%) and 9 patients (69.23%) showed marked improvement. In this paper, effect of *Yashtyahvadi Niruha* (a type of decoction made enema in which *Glycyrrhiza glabra* is the main ingredient) along with *Guduchi taila* (Oil prepared by *Tinospora cordifolia*) in *yoga vasti* (special type of enema therapy) schedule followed by *Bodhivriksha Kashay* (Decoction of *Ficus religiosa*) *sevana* on *vatarakta* (Gout) and only *Bodhivriksha Kashay sevana* (*Ficus religiosa*) on *vatarakta* (Gouty arthritis), have been discussed with statistical analysis.

Keywords: *Vatarakta*, Gout, *Yashtyahvadi Niruha*, *Guduchi taila*, *Bodhivriksha Kashay*.

INTRODUCTION

"Vatarakta" (Gout) is a great medical problem throughout the world. It is a great enemy in the society, because it distresses the life of human being. In ancient medical literature like Charak, Sushrut, Vagbhatta, Yogaratnakar, Madhav Nidan etc. have been suggested many treatment to get rid of this disease. In *Vatarakta* (Gout), both *Vata* and *Rakta* are aggravated and vitiated by their etiological factors and ultimately *vayu* gets obstructed by vitiated *Rakta*⁽¹⁾. The chief complain of the patient is severe *sandhi-shula* (Joint pain) onset on *Hasta* (hand), *pada Mulagata Sandhi* (Leg joints) and then migrates to other *sandhi* (joint) in a way similar to *Akhuvisa*⁽²⁾ (Rat poison). It produces various sign and symptoms like *Ruka* (Excruciating pain), *Swayathu* (Swelling), *Daha* (Burning sensation), *Stabdha* (Stiffness of joint), *Shyaba-Rakta Varna* (Blackish red in colour), *Sparsha-Ashatwa* (Touch in tolerance) etc.⁽³⁾ The sign and symptoms of *vatarakta* (Gout) reveals that it is a vascular disease in which several forms of grave disorders like Burger's disease, Raynod's Phenomena etc. may be included. The sign and symptoms of Gouty arthritis can be compared with *uttana vatarakta* (Gout). So, in many of the modern Ayurvedic books, Gouty arthritis has been considered as *Vatarakta* (Gout). Gout is a metabolic disease that most often affects middle-aged to elderly men and post menopausal women. It results from an increased body pool of urate with hyperuricaemia. It typically is characterized by episodic acute and chronic arthritis caused by deposition of MSU crystals in joints and connective tissue⁽⁴⁾. The epidemiology of hyperuricaemia is different from that of Gout. Mean uric acid (urate) concentration are age and sex related. Prepubertally, in males the mean concentration is around

3.5 mg/dl, with a steep rise to 5.2 mg/dl at puberty. In females, the mean concentration is up to 4.7 mg/dl with rise only after menopause. Gout is seen in only one-tenth of patients of hyperuricaemia. The incidence of Gout varies in population from 0.2 to 3.5 per 1000, with an overall prevalence of 2.26 per 1000. It is found to have increased prevalence in recent years⁽⁵⁾. According to modern treatment, anti-inflammatory drugs, NSAID (Non steroid anti inflammatory drugs), Gluco-corticoids are administered to treat Gouty arthritis symptomatically which have many adverse effects particularly in presence of renal insufficiency and gastro-intestinal disorders making the disease chronic after prolonged usage. Therefore, there is a definite need to explore more efficacious and radical cure to this illness. With this background present study has been intended to evaluate the combined efficacy of *Yashtyahvadi Niruha* along with *Guduchi taila* in *yoga vasti* schedule followed by *Bodhibriksha Kashay* (decoction of *Ficus religiosa*) *sevan* in the management of *Vatarakta*. (Gouty arthritis).

AIMS AND OBJECTIVES:

- i) A thorough review of literature, concerned with this disease.
- ii) To study etio-pathogenesis, symptomatology and progress of *vatarakta* (Gout) with special reference to Gout.
- iii) To assess the efficacy of both *Basti* Therapy and *Shamana Chikitsa*, in the management of *Vata-Rakta* (Gout).
- iv) To compare the effect of both therapies clinically.
- v) To evaluate cheap, effective, safe remedy for this disease.

MATERIALS AND METHODS:

(A) Study Area:

Total 40 patients, diagnosed as *vatarakta* (Gout) selected incidentally from

the OPD of I.P.G.A.E&R. at S.V.S.P. Hospital and Panchakarma Department of J. B. Roy State Ayurvedic Medical College and Hospital, Kolkata.

(B) Ethical Clearance:

The study was cleared by the Ethical Committee of the institute of Post Graduate Ayurvedic Education & Research at S.V.S.P. Hospital dated 22.03.2013 with the number bearing Memo No. SVP/Pd₂/361/ 2013. Written consent was taken from the patient willing to participate before starting the study.

(C) Sample Size: 40 patients

(D) Sample Design:

The total patients were divided into 2 groups. Group – A (20 patients) patients were administered with *Bodhibriksha Kashaya* (decoction of *Ficus religiosa*) along with honey only and Group – B patients were treated with *Yashtyahvadi Niruha* (a decoction made enema in which *Glycyrriza glabra* is main ingredient) and *Guduchi taila* (oil prepared by *Tinospora cordifolia*) in yoga vasti schedule followed by *Bodhibriksha Kasaya sevana* with honey.

(E) Study Period:

Shodhan + Shaman = 8 + 45 days

Shaman = 45 days

(F) Follow Up:

Group – A patients were reviewed after interval of 15 days for a period of 45 days and Group – B patients were reviewed after interval of 15 days for a period of 53 days (8 days + 45 days).

(G) Drop Out:

Among 40 patients, 7 patients were dropped out during study course; hence complete clinical study was done in 33 patients.

(H) Inclusion Criteria:

i) Clinically diagnosed by

a. *Ruk* (Severe Pain)

b. *Shoatha* (Swelling)

c. *Daha* (Burning Sensation)

d. *Stabdha* (Stiffness of joint)

e. *Sparshaasahatwa* (Touch intolerance)

f. *Toda* (Tender)

g. *Shyaba – Rakta Varna* (Blackish red in colour)

ii) Age : 20 – 70 years

iii) Sex : Both sexes

iv) Increase serum uric acid level.

(I) Exclusion Criteria:

i) Auto immune disease of joints.

ii) Ex foliation occurs up to knee.

iii) Rheumatoid arthritis with joint pain.

iv) Diabetes Mellitus with joint pain.

(J) Diagnostic Criteria:

i) Detailed History.

ii) Increase Serum Uric Acid level.

iii) X-ray of affected Joint, if needed

(K) Preparation of Medicine:

a. *Bodhibriksha (Ficus religiosa) Kashaya*⁽⁶⁾

• Dry *Bodhibriksha* (Ashwattha) Twak=1 part

• Water = 4 parts

• Remaining part = 1/4th

b. *Yashtyahvadi Niruha*⁽⁷⁾

• *Yastimadhu* = 1 pala (*Glycyrrhiza glabra*)

• *Godugdha* = 8 pala

• Water = 32 pala

• Remaining part = 8 pala

• *Kalka* = *Mouri (Foeniculum vulgare)*+ *Madanphala (Randia dumetorum)*+*Pippali* (*Piper longum*)= 1 prasrita

• *Madhu* = 2 prasrita

• *Ghrita* = 3 prasrita.

c. *Guduchi taila*⁽⁸⁾

• *Guduchi Kvath* (decoction of *Tinospora cordifolia*)= 4 parts

• *GuduchiKalka* = 1/4 parts

• *Godugdha* (milk) = 1 part

• *Til taila* (oil)= 1 part

(L) Dose:

- The amount of *Bodhivriksha kashay* (*Ficus religiosa*) 60 ml twice daily before meal.
- The amount of *Niruha vasti* was administered considering 10 factors of the patient.

In this study average 700-1000 ml of *Niruha vasti* was given.

The amount of *Anubasan (sneha based enema)* was ¼th of *Niruha*.

Criteria for assessment:

The sign and symptoms of patients along with serum uric acid level were assessed before and after treatment by grading some special scores. They are as follows:-

Criteria of estimation of Degree of disease: Table No.1

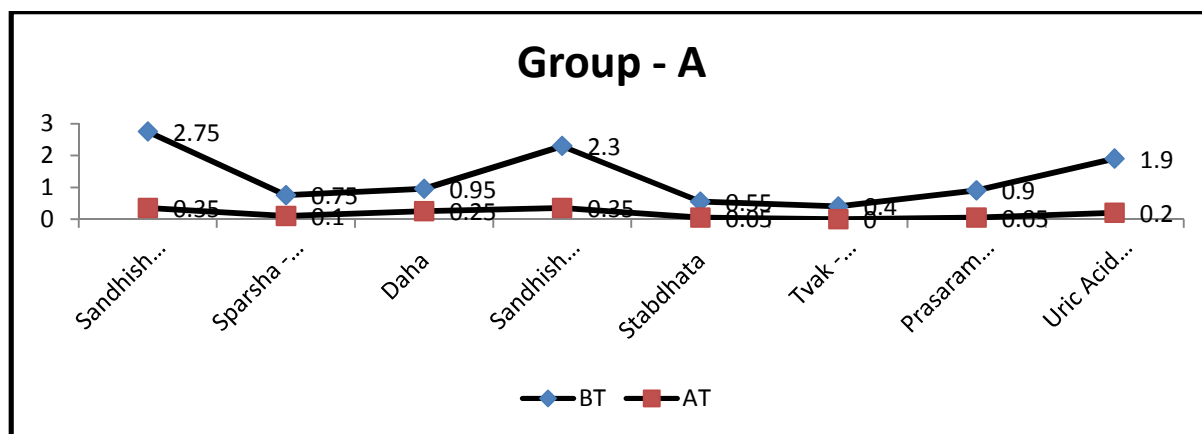
Symptoms	Grade	Findings
1) <i>Sandhishula</i> (Joint pain)	0	No pain
	1	Mild pain with no difficulty in flexion and extension
	2	Tolerate pain with slight difficulty in flexion and extension
	3	Moderate pain with much difficulty in flexion and extension
	4	Severe pain with restricted movement.
2) <i>Sparshaasahatwa</i> (Touch in tolerance)	0	No <i>sparsha – asahatwa</i>
	1	Mild touch causes little <i>sparshaasahatwa</i>
	2	Little touch causes marked <i>sparsha – asahatwa</i> .
	3	Little touch causes severe marked <i>sparsha – asahatwa</i> .
	4	Little touch causes more severe <i>sparsha – asahatwa</i> .
3) <i>Daha</i> (Burning sensation)	0	Absent
	1	Transient, no approach for its aversion
	2	Frequent (day time) self approach for its aversion
	3	Frequent (day & night) self approach for its aversion
	4	Regular seeking medical advice.
4) <i>Sandhishotha</i> (Swelling in joints)	0	No swelling
	1	Swelling but not apparent
	3	Swelling obvious on lesser than 2 joints
	4	Swelling obvious more than 4 joints.
5) <i>Stabdhatata</i> (Stiffness)	0	No stiffness
	1	Stiffness sometimes
	2	Stiffness quiet often
	3	Stiffness continuous in day time
	4	Stiffness continuous in day and night.
6) <i>Twaklohita – Shyaba Rakta Varna</i> (Blackish)	0	Not seen
	1	Mild

red in colour)	2	Moderate
	3	Marked
	4	Severe
7) <i>Prasaran– AkunchanAshakthi</i> (Inability to flexion and extension)	0	Not seen
	1	Mild
	2	Moderate
	3	Marked
	4	Severe
8) Uric acid level	0	≤ 5 – 5.9
	1	6 – 6.9
	2	7 – 7.9
	3	8 – 8.9
	4	9 and above

OBSERVATION AND RESULTS:

Effect of therapy in 8 major parameters in Group – A patients: Table No. 2

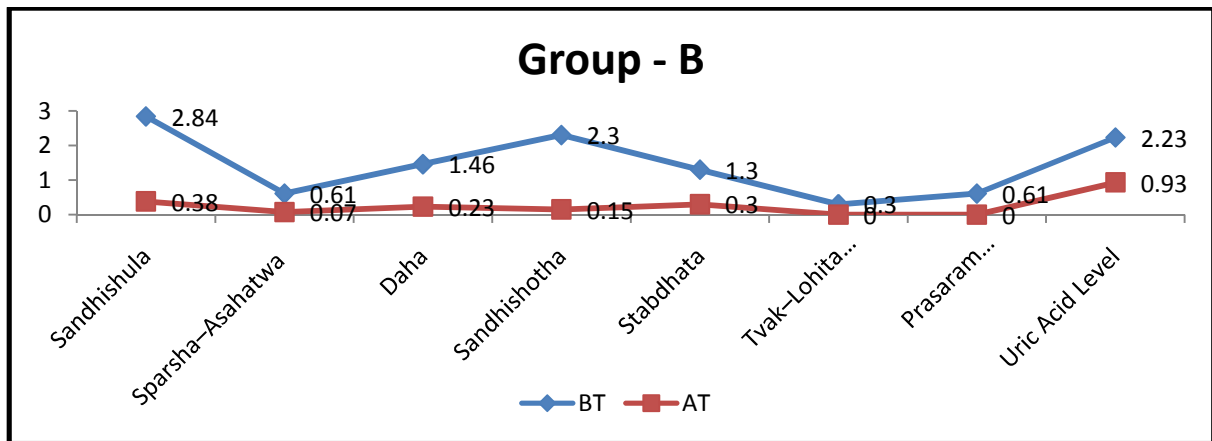
Sl. No.	Major Parameters	Mean Score		Difference in Mean	%	Paired t test			
		BT	AT			SD	SE	T	P
1.	<i>Sandhishula</i>	2.75	0.35	2.40	87.27%	0.820	0.183	13.11	<.001%
2.	<i>Sparsha– Asahatwa</i>	0.75	0.10	0.65	86.66%	0.744	0.166	3.91	<.001
3.	<i>Daha</i>	0.95	0.25	0.70	73.68%	0.571	0.127	5.51	<.001
4.	<i>Sandhishotha</i>	2.3	0.35	2.05	89.13%	0.968	0.216	9.49	<.001
5.	<i>Stabdhatata</i>	0.55	0.05	0.50	90.90%	0.512	0.114	4.38	<.001
6.	<i>Tvak– LohitaShyaba– RaktaVarna</i>	0.40	0	0.40	100%	0.589	0.131	3.05	<.01
7.	<i>Prasaran Akun- chan Ashakti</i>	0.90	0.05	0.85	94.44%	0.532	0.118	7.20	<.001
8.	Uric Acid Level	1.9	0.2	1.7	89.47%	0.732	0.163	10.42	<.001



Showing effect of therapy in 8 major parameters in Group – A patients: Fig. No. 1

Effect of therapy in 8 major parameters in Group – B patients: Table No. 3

Sl. No.	Major Parameters	Mean Score		Difference in Mean	%	Paired t test			
		BT	AT			SD	SE	T	P
1.	Sandhishula	2.84	0.38	2.46	86.61	1.26	0.35	7.02	<.001
2.	Sparsha–Asahatwa	0.61	0.07	0.53	86.88	0.775	0.215	2.46	<.02
3.	Daha	1.46	0.23	1.23	84.24	0.924	0.256	4.80	<.001
4.	Sandhishotha	2.30	0.15	2.15	93.47	1.17	0.325	6.61	<.001
5.	Stabdhatata	1.30	0.30	1	76.92	.407	0.113	8.84	<.001
6.	Tvak–LohitaShyaba– Rak-taVarna	0.30	0	0.30	100	0.479	.133	2.25	<.02
7.	PrasaramAkunchanAshakti	0.61	0	0.61	100	0.504	0.14	4.35	<.001
8.	Uric Acid Level	2.23	0.93	1.30	58.29	0.854	0.237	5.48	<.001



Showing effect of therapy in 8 major parameters in Group – B patients: Fig. No. 2

Overall Effect of the Therapy:

The sum points of all the parameters of assessment before and after the treatment were taken into consideration to assess the total effect of the treatment as follows:

1. Marked improvement → Relief of > 70%

- 2. Moderate improvement → 50 – 70% relief
- 3. Mild improvement → Less than 50% of relief
- 4. No change → 0% relief

Overall response to the treatment: Table No. - 4

Group	Overall response to the treatment							
	No improvement		Mild improvement		Moderate improve-ment		Marked improvement	
	No. of Patients	Percentage (%)	No. of Patients	Percentage (%)	No. of Patients	Percentage (%)	No. of Patients	Percentage (%)
Group – A	0	0%	0	0%	1	5%	19	95%
Group – B	0	0%	1	7.69%	3	23.07%	9	69.23%

DISCUSSION

Vatarakta (Gouty arthritis) is caused by *vataprakopa* and *Raktapradushak hetu*. This *prakupita Vata* along with *Rakta Dusti* moves throughout the body and takes *sthanasumshraya* at the *padangustha sandhi* (metatarsal joint) due to its *vyadhi-prabhav*. So, *Vatarakta* is considered as *Aharjannya vatavyadhi*. Due to properties like *sukshmatva* (subtle) and *saratwa* (Fluidity) of *vayu*, *dravatwa* (liquidity) and *saratwa* (fluidity) of *Rakta*, they spread all over the body. The spreading is facilitated by *vyanvayu*. The doshas get lodge in *sandhies* (joints). The main and first site of manifestation is *padamula* {1st metatarsal joint} and then *hasta* (hand), *pada* (leg) and from there onwards spread upwards. The process of manifestation is similar to that of Rat poison. According to Charak, *vasti* (enema) is the best remedy for the disease *vatarakta*. This disease when affects the leg, indicative of predominant of *vata* vitiation, *vasti* (enema therapy) is the best option. Administration of *ksheera vasti* (main ingredient-milk) is emphasized in all types of *vatarakta*. So, in this study *yashtyahvadi niruha* which have main ingredient of *yastimadhu* (*Glycyrrhiza glabra*) and *dugdha* (milk) have been selected. It may be considered that *Niruha vasti* is hypsotonic and which facilitates absorption of morbid factors into the solutions whereas the *Sneha vasti* contains hypo-osmotic solution facilitating absorption into the blood. In this study, *Guduchi taila* has been used as *Anuvasan vasti*. *Guduchi* has predominance of *Katu – Tikta – Kashay Rasa*. So, it pacifies *Kapha – Pitta*. For *Snigdha – Ushna Guna*, it pacifies *vata*. Finally it can be concluded that *Guduchi* has *Tridosh Shamak* property. Beside *Guduchi Svaras*, *Churna*, *Kalka*, *Kvath* are

very much beneficial for *vatarakta*⁽¹¹⁾. So, *Guduchi taila* was prepared by *Guduchi Svaras*, *Kalka*, *Kvath*, so that active principle of *Guduchi* (*Tinospora cordifolia*) can enter so easily in blood.

Probable mode of action of Bodhivriksha Kashay: This drug is specially indicated in *Vatarakta Chikitsa*. *Ashwattha* (*Bodhivriksha*) has *Guru-Rukshma guna*, *Madhur – Kashay Rasa* and *Katuvipak*, *Sheetavirya* and *Dosh karma – Kapha – pittashamak* as well as *Rakta prashamak* qualities. It has special action on *vatarakta* and *Raktavikara*⁽¹²⁾. According to Charak, *Ashwattha Kashay* along with honey is indicated in *Tridoshaja Vatarakta*. Beside *Ashwattha* has analgesic activity, anti-inflammatory activity⁽¹³⁾. So, this drug has been selected in this study.

CONCLUSION

It can be concluded from the current research project that:-

- 1) Based on the symptomatology Gouty arthritis can be compared with *Vatarakta*.
- 2) Only *Bodhivriksha Kashay sevan* is highly effective, relatively safe, cost effective modalities than *Yashtyahvadi Niruha* along with *Guduchi taila vasti* followed by *Bodhivriksha Kashay Sevana* for the management of *Vatarakta* (Gouty arthritis).
- 3) Study has not shown any side-effects.

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