A CLINICAL STUDY OF JATIPHALA TAILA ABHYANGA ON VATARAKTA

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ABSTRACT

Vatarakta is the disease with the involvement of aggravated '*Vata'
Dosha* along with vitiated '*Rakta' Dhatu*. *Vatarakta* is the variety of
disease which has been imposing challenge for both physicians and
patients. The disease *Vatarakta* in contemporary science mimics with
various types of arthritis with not only restriction in movement of
limbs but also leads to deformity if it persists in the body for long time
duration. Arthritis effects more than 180 million people (15% of
population) in India. Prevalence of this disease is been increasing due
to the unwholesome physical activities and altered food habits of the
people. Here an effort is made to study the efficacy of *Sooryapaka
Jatiphala Taila Abhyanga* in *Vatarakta*. This is a single drug study
with a sample size of 30 patients. Sufficient quantity of *Jatiphala Taila*
was given for *Abhyanga* for the period of 14days, and the data was collected from the
subjects at baseline i.e. 7th day (during treatment), 14th day (after treatment) and 21st day
(follow up). The overall effect of *Jatiphala Taila Abhyanga* on *Vatarakta* was 70.81% and all
the parameters showed statistically significant results except *Vakrata*.

KEYWORDS: *Vatarakta*, *Sooryapaka Jatiphala Taila*, *Abhyanga*, Arthritis.

INTRODUCTION

Vatarakta cases has been drastically increasing in the society day by day due to the lifestyle
of present era, over exercise and lack of exercise. The name itself denotes that the disease

Vatarakta is caused by aggravation of *Vata* and vitiation of *Rakta* by their own causative factors.[1] Some of the causative factors are relevant for vitiation of both *Vata* and *Rakta*.

On the basis of dominant *Dosha*, Acharya *Sushruta* has mentioned *Vatarakta* along with *Vatavyadhi*[2] whereas *Acharya Caraka*[3] and *Vaghbata*[4] has assigned separate chapter for it. Various modalities for *Vatarakta* has been explained in *Ayurvedic* classics. Being *Vata Pradhana Vyadhi*, use of *Sneha*[5] is one of the effective therapy to control *Vatarakta*. *Yogaratnakara* has quoted "*Vatam Snehena Mitravat*"[6] which means whenever *Vata* gets aggravated, by that time through *Snehana Chikitsa* it should be controlled, just like an agitated friend is controlled by friendship. So *Yogaratnakara* guided us to see *Vata* as friend and treat it with *Snehana*.

While explaining *Chikitsa* for *Vatarakta*, *Acharya Caraka* mentioned *Abhyanga* under *Uthana Vatarakta*[7] treatment whereas *Yogaratnakara* advised "*Snehaihi*"[8] i.e. all types of *Snehana Chikitsa* (both internal and external) to be used in all types of *Vatarakta*. With the consideration of the above criteria *Abhyanga Chikitsa* was selected in the present study.

Acharya Caraka in *Vatavyadhi Chikitsa* has mentioned the utility of *Gandha Dravyas.*[9] *Jatiphala* is one among *Karpooradi Varga* in *Bhavaprakasha*[10] and in *Candanadi Varga* in *Raja Nighantu*[11], both of these *Varga* includes majority of *Gandha Dravya* in it. Since there is no proper reference on which *Gandha Dravya* to be used, *Jatiphala* being aromatic, with the property of *Vatahara*[12] and easily available is selected.

Since *Jatiphala* has aromatic and volatile oil, for the purpose of reducing the loss of these active principles, *Sooryapaka*[13] method of *Sneha Kalpana* is selected. Thus keeping the above mentioned context in mind, *Sooryapaka Jatiphala Taila* was used for *Abhyanga* and its efficacy in different conditions of *Vatarakta* was evaluated.

MATERIAL AND METHODS

Source of data

Minimum 30 patients suffering from *Vatarakta* was selected for study from OPD and IPD of KVG Ayurveda Medical College and Hospital, Sullia.

Pharmaceutical source

Raw drug was collected from local market and pharmacy after proper identification and formulation of *Jatiphala Taila* was prepared in KVG Ayurveda Medical College and Pharmacy.

Study Design: An open clinical study.

Selection criteria

The cases were selected strictly as the pre-set inclusion and exclusion criteria.

Inclusion criteria

- Patients between 20 to 75 years of age irrespective of gender and religion.
- Patients with symptomatology of *Vatarakta* according to classics.
- *Sneha Yogya* as per the classics.

Exclusion criteria

- Patients of age below 20 and above 75 years.
- *Abhyanga* Ayogya conditions (immediately after *Shodhana* procedure and *Ama* conditions)
- Other major systemic diseases, history of fracture.
- Patient who is under medication of *Vatarakta* and not willing to discontinue previous treatment.

Intervention

30 patients fulfilling the inclusion criteria will be selected, *Jatiphala Taila Abhyanga* done for 20min (converted from *Matra* to minutes)[14] every morning (approximately 10:30am to 11am) over the affected joint.

Treatment plan

30 patients of *Vatarakta* were selected and assigned into single group. Patients were selected according to inclusion and exclusion criteria. Patient was treated with *Jatiphala Taila* as *Abhyanga Yoga*.

Treatment schedule

Sample size   :   30 patients
Medicine   :   *Jatiphala Taila*

Dose	:	Quantity sufficient
Time of administration	:	Early morning
Duration	:	14days
Follow up	:	7days
Total duration	:	21days

Method of assessment of clinical response:

Assessment criteria

In Ayurveda there are no subjective and objective parameters for assessment. It is done purely based on *Roga Lakshana* (symptomatology) as mentioned in classics. For assessment following *Lakshana*s were considered and they were assessed with different gradings and analysed statistically by Paired T – test.

Clinical parameters

Signs and symptoms explained in the classics that are considered for assessment are –

- *Ruja.*
- *Daha.*
- *Stabdhata.*
- *Suptata.*
- *Shopha.*
- *Vaivarnya.*
- *Vakrata.*
- *Kandu.*
- *Sparshasahishnuta.*
- *Chimichimayana.*

Grading of assessment criteria

1. Ruja

Table No.01: Showing grading of *Ruja*.

Ruja	
SYMPTOMS	**GRADING**
ABSENT	0
AVARA	1
MADHYAMA	2
PRAVARA	3

Absent – no pain.

Avara – Pain of bearable in nature but no difficulty in movements.

Madhyama – Slight difficulty in joint movements due to pain or pain require medication and remain throughout the day.

Pravara – More difficulty in moving joints pain is severe disturbing sleep.

2. Daha

Table No.02: showing grading of *Daha*.

Daha	
SYMPTOMS	**GRADING**
ABSENT	0
AVARA	1
MADHYAMA	2
PRAVARA	3

Absent – no burning sensation.

Avara – Present but not troublesome.

Moderate – Troublesome but not interfering with normal daily activities or sleep.

Severe – Severe burning sensation which is troublesome and normal routine activities will be hampered and disturbing sleep.

3. Stabdhata

Table No.03: showing grading of *Stabdhata*.

Stabdhata	
SYMPTOMS	**GRADING**
ABSENT	0
AVARA	1
MADHYAMA	2
PRAVARA	3

Absent – no stiffness.

Avara – stiffness lasting from 5minutes to 2hours.

Madhyama – stiffness lasting for 2hours to 8hours.

Pravara – stiffness lasting for more than 8hours.

4. Suptata

Table No.04: showing grading for *Suptata*.

Suptata	
SYMPTOMS	**GRADING**
ABSENT	0
AVARA	1
MADHYAMA	2
PRAVARA	3

Absent – no numbness.

Avara – mild numbness while doing work.

Madhyama – moderate numbness disturbing the regular activities.

Pravara – severe numbness throughout the day.

5. *Shopha*

Table No.05: showing grading of *Shopha*.

Shopha	
SYMPTOMS	**GRADING**
ABSENT	0
AVARA	1
MADHYAMA	2
PRAVARA	3

Absent – No swelling.

Avara – swelling seen on weary work.

Madhyama – swelling seen on regular activites that are non-exhaustive.

Pravara – swelling seen while on rest.

6. *Vaivarnya*

Table No.06: showing grading of *Vaivarnya*.

Vaivarnya	
SYMPTOMS	GRADING
ABSENT	0
AVARA	1
MADHYAMA	2
PRAVARA	3

Absent – No discoloration.

Avara – Mild discoloration (light shade).

Madhyama – Moderate discoloration (Medium shade).

Pravara – Severe discoloration (dark shade).

7. *Vakrata*

Table No.07: showing grading of *Vakrata*.

Vakrata	
SYMPTOMS	**GRADING**
ABSENT	0
PRESENT	1

Absent – no deformities of joint.

Present – deformity present in the affected joint.

8. *Kandu*

Table No.08: showing grading of *Kandu*.

Kandu	
SYMPTOMS	**GRADING**
ABSENT	0
AVARA	1
MADHYAMA	2
PRAVARA	3

Absent − No itching.

Avara − Itching present but not troublesome.

Madhyama − Itching present and is troublesome but does not interfere with routine activities.

Pravara − Severe itching interfering with daily routine.

9. *Sparshasahishnuta*

Table No.09: Showing grading of *Sparshasahishnuta*.

Sparshasahishnuta	
SYMPTOMS	**GRADING**
ABSENT	0
MILD(TENDERNESS ON DEEP PALPATION)	1
MODERATE(PATIENT WINCES ON PALPATION)	2
SEVERE TENDERNESS AND PATIENT WITHDRAWS THE PART	3
SEVERE TENDERNESS AND PATIENT DOES NOT ALLOW TO TOUCH	4

10. *Chimichimayana*

Table No.10: Showing grading of *Chimichimayana*.

Chimichimayana	
SYMPTOMS	**GRADING**
ABSENT	0
MILD	1
MODERATE	2
SEVERE	3

Absent − no tingling sensation.

Avara − mild tingling sensation but not troublesome.

Madhyama − moderate tingling sensation which is troublesome but not interfering with daily routine.

Pravara − severe tingling sensation affecting daily routine.

MATERIALS USED FOR THE STUDY

Jatiphala Taila

Table No. 19: Showing *Jatiphala Taila* ingredients and quantity of each drug.

Drugs	Latin name	Quantity
Jatiphala Kalka	Myristica fragrans	¼ part of *Taila*
Tila *Taila*	-	1 part

Ayurvedic measurements are in volumetric. Hence the measurements taken for the study are also volumetric in nature.

Drugs were taken in following proportions –

Jatiphala Kalka – ¼ part of *Taila*

Tila *Taila* – 1 part.

Steps of preparation

- Freshly dried *Jatiphala* was identified and collected from a farm nearby, Tila *Taila* was purchased from local market after proper identification.

- Properly cleaned and dried *Jatiphala* is taken and pounded into a coarse powder.

- *Tila Taila* taken in above mentioned quantity in an iron vessel, coarse powdered *Jatiphala* is added in the mentioned quantity in it.

- The vessel is then placed under sunlight.

- The mixture is continuously monitored and is stirred to mix up the *Kalka* repeatedly.

- The vessel is placed under sunlight till there is no further change in colour, smell and consistency of oil is seen.

- Total number of days taken was 7days i.e. approximately 56hours.

- The *Taila* was filtered using a clean white cloth, measured and collected in airtight container.

RESULTS

Effect on *Ruja*: The study showed statistically significant result with an improvement of 76.67% over *Ruja*.

Table No. 11: Showing effect _Jatiphala Taila Abhyanga_ on _Ruja_.

SYMPTOM	MEAN SCORE			%	S.D (±)	S.E (±)	t-VALUE	p-VALUE
	BT		BT-AT					
RUJA	2.3	AT	1	1.3	56.52	O.466	0.085	15.29	<0.001
		AF	0.767	1.533	76.67	0.629	0.115	13.35	<0.001

Effect on _Daha_: The study showed statistically significant result with an improvement of 81.81% over _Daha_.

Table No.41: Showing effect of _Jatiphala Taila Abhyanga_ on _Daha_ in _Vatarakta_.

SYMPTOM	MEAN			%	S.D. (±)	S.E. (±)	t VALUE	P VALUE
	BT		BT-AT					
DAHA	0.367	AT	0.1	0.267	72.73	0.449	0.083	3.232	<0.001
		AF	0.067	0.3	81.81	0.535	0.098	3.055	<0.001

Effect on _Stabdhata_: The study showed statistically significant result with an improvement of 67.83% over _Stabdhata_.

Table No.12: Showing effect of _Jatiphala Taila Abhyanga_ on _Stabdhata_ in _Vatarakta_.

SYMPTOM	MEAN SCORE			%	S.D. (±)	S.E. (±)	t VALUE	p VALUE
	BT		BT-AT					
STABDHATA	1.967	AT	0.667	1.3	66.10	0.535	0.098	13.24	<0.001
		AF	0.633	1.334	67.82	0.607	0.111	12.01	<0.001

Effect on _Suptata_: The study showed statistically significant result with an improvement of 74.11% over _Suptata_.

Table No.13: Showing the effect of _Jatiphala Taila Abhyanga_ on _Suptata_ in _Vatarakta_.

SYMPTOM	MEAN SCORES			%	S.D (±)	S.E (±)	t VALUE	p VALUE
	BT		BT-AT					
SUPTATA	0.9	AT	0.233	0.667	74.11	0.547	0.1	6.65	<0.001
		BT	0.233	0.667	74.11	0.547	0.1	6.65	<0.001

Effect on _Shopha_: The study showed statistically significant result with an improvement of 69.24% over _Shopha_.

Table No.14: Showing effect of _Jatiphala Taila Abhyanga_ on _Shopha_ in _Vatarakta_.

SYMPTOM	MEAN SCORES			%	S.D (±)	S.E (±)	t VALUE	p VALUE
	BT		BT-AT					
SHOPHA	1.733	AT	0.7	1.033	59.62	0.414	0.076	13.59	<0.001
		AF	0.533	1.2	69.24	0.551	0.101	11.67	<0.001

Effect on *Vaivarnya*: The study showed statistically significant result with an improvement of 86.60% over *Vaivarnya*.

Table No.15: Showing effect of *Jatiphala Taila Abhyanga* on *Vaivarnya* in *Vatarakta*.

SYMPTOM	MEAN SCORES			%	S.D (±)	S.E (±)	t VALUE	p VALUE
	BT		BT-AT					
VAIVARNYA	0.5	AT 0.1	0.4	80	0.498	0.091	4.376	<0.001
		AF 0.067	0.433	86.60	0.504	0.093	4.681	<0.001

Effect on *Vakrata*: The study showed no statistically significant result.

Table No. 16: Showing effect of *Jatiphala Taila Abhyanga* on *Vakrata* in *Vatarakta*.

SYMPTOMS	MEAN SCORES			%	S.D (±)	S.E (±)	t VALUE	p VALUE
	BT		BT-AT					
VAKRATA	0.133	AT 0.133	0	0	0	0	0	>0.001
		AF 0.133	0	0	0	0	0	>0.001

Effect on *Kandu*: The study showed statistically significant result with an improvement of 93.40% over *Kandu*.

Table No.17: Showing effect of *Jatiphala Taila Abhyanga* on *Kandu* in *Vatarakta*.

SYMPTOM	MEAN SCORES			%	S.D (±)	S.E (±)	t VALUE	p VALUE
	BT		BT-AT					
KANDU	0.5	AT 0.033	0.467	93.40	0.718	0.132	3.54	<0.001
		AF 0.033	0.467	93.40	0.718	0.132	3.54	<0.001

Effect on *Sparshasahishnuta*: The study showed statistically significant result with an improvement of 70.87% over *Sparshasahishnuta*.

Table No.18: Showing effect of *Jatiphala Taila Abhyanga* on *Sparshasahishnuta* in *Vatarakta*.

Symptom	MEAN SCORES			%	S.D (±)	S.E (±)	t VALUE	p VALUE
	BT		BT-AT					
Sparshasahishnuta	0.8	AT 0.233	0.567	70.87	0.621	0.114	4.973	<0.001
		AF 0.233	0.567	70.87	0.621	0.114	4.973	<0.001

Effect on *Chimichimayana*: The study showed statistically significant result with an improvement of 87.62% over *Chimichimiyana*.

Table No.19: Showing effect of *Jatiphala Taila Abhyanga* on *Chimichimayana* in *Vatarakta.*

SYMPTOM	MEAN SCORES			%	S.D (±)	S.E (±)	t VALUE	p VALUE
	BT		BT-AT					
CHIMICHIMAYANA	0.267	AT	0.067	0.2	74.99	0.407	0.076	2.68	<0.001
		AF	0.033	0.234	87.62	0.43	0.079	2.96	<0.001

Overall effect

Table No. 20: Showing Overall effect of treatment on *Vatarakta.*

OVERALL EFFECT OF TREATMENT		
GRADING	RELIEF IN PERCENTAGE	RELIEF IN PATIENTS
No improvement	0%	0
Mild improvement	1-30%	1
Moderate improvement	31-60%	7
Marked improvement	61-99%	21
Complete remission	100%	1

In overall effect of treatment in *Vatarakta*, out of 30 patients in the study, 1 patient (3%) has Mild improvement, 7 patients (24%) have moderate improvement, 21 patients (70%) have Marked improvement and 1 patient (3%) has Complete remission.

Overall effect of the treatment is 70.81%.

DISCUSSION

Among the *Nidana* mentioned for *Vatarakta*, *Katu*, *Amla*, *Lavana*, *Rooksha* and *Ushna Bhojana* (food prepared by using excess of spices, tamarind, intake of black tea, pickles, etc) were commonly seen. *Masha* (in the form of idli, dosa, vada etc), *Kulattha*, *Moolaka*, *Takra* and *Dadhi Prayoga* were seen as routine. Majority of *Nidana* were *Ruksha*, *Ushna*, *Teekshna*, *Laghu Guna* which aggravates both *Vata* and *Rakta*.

Among 30 patients of *Vatarakta*, the *Doshadhikata* were seen as follows – 56.67% were *Vatadhika Vatarakta*, 10% were *Pittadhika Vatarakta*, 16.67% were *Kaphadhika Vatarakta*, 6.66% were *Raktadhika Vatarakta* and 10% were *Vatakaphadhika Vatarakta*.

In the study among 30 patients, 14 patients were observed with chronicity 1 year and below, 1 patient got mild relief (7%), 3 patients got moderate relief (22%) and 10 patients got marked relief (71%). In the group with chronicity of above 1 year, among 16 patients, 4 patients got moderate relief (25%), 11 patients had marked relief (69%) and 1 patient had

complete remission from the symptoms (6%). So with above mentioned parameters, it can be concluded that *Jatiphala Taila Abhyanga* has no much difference in its action on chronicity below and above 1 year.

The *Abhyanga* was done for 14days with *Jatiphala Taila* as *Shamana Yoga* which was highly significant. None of the patients developed complications or any side effects during the course of the treatment, hence the treatment modality is safe and is of therapeutic value. The above said observations indicate that patients have shown marked improvement in all criteria of assessment of *Vatarakta*.

In overall effect of the treatment in *Vatarakta*, out of 30 patients in the study, 1 patient (3%) has Mild improvement, 7 patients (24%) have moderate improvement, 21 patients (70%) have marked improvement and 1 patient (3%) has complete remission. Overall effect of the treatment is 70.81%.

Probable mode of action
Jatiphala is *Tikta Rasa* which is *Pittahara* in nature, by *Ashrayashrayi Bhava Siddhanta*, *Pitta* being *Ashraya* of *Rakta* in turn there is reduction in *Rakta* vitiation. The property of *Teekshna Guna*, *Ushna Veerya* and *Guna* of *Jatiphala* reduces *Vata Dosha*. *Jatiphala* is one among the *Gandha Dravyas*, for *Chikitsa* the base of action is always dependant on *Panchamahabhuta*. Here *Gandha* is the *Tanmatra* of *Pruthvi Mahabhuta* and for subsiding *Prakupita Vata*, the *Mahabhuta* responsible are *Pruthvi* and *Jala*, thus the *Gandha Guna* of *Jatiphala* helps in reducing *Prakupita Vata Dosha*. In *Pittopakrama*, utility of *Sugandha Dravya* is indicated. *Jatiphala* due to it aromatic nature, reduces *Visra Guna* of *Pitta Dosha* which further reduces vitiated *Rakta*.

Tila Taila has *Madhura, Tikta Rasa, Kashaya Anurasa, Madhura Vipaka, Guru, Ushna, Snigdha, Sookshma, Vyavayi, Vikasi, Yogavahi* and *Teekshna Guna. Madhura Rasa* has *Snigdha* and *Guru Guna* which reduces *Rooksha* and *Laghu Guna* of *Vata. Kashaya Rasa* due to its *Guru Guna* acts on *Laghu Guna* of *Vata. Guru, Snigdha Guna* and *Ushna Guna* of *Tila Taila* reduces *Laghu, Rooksha* and *Sheeta Guna* of *Vata. Yogavahi Guna* of *Tila Taila* further potentiates the action when given in combination. *Madhura, Tikta Rasa* and *Kashaya Anurasa* of *Tila Taila* reduces *Pitta Dosha. Guru* and *Sthira Guna* of *Taila* reduces *Laghu* and *Sara Guna* of *Pitta.*

CONCLUSION

The following conclusions are drawn from the clinical study undertaken on the topic *Jatiphala Taila Abhyanga* in *Vatarakta* at KVGAMC & H Sullia:

1. In this study age group between 51-60 and 61-70 years were more affected with *Vatarakta*.

2. In this study *Amla*, *Lavana*, *Ushna*, *Masha*, *Dadhi*, *Takra*, *Atichamnkramana* and were commonly seen as the *Nidana* for *Vatarakta*. *Avyayama* though seen in only 4 patients, can be considered as a major cause because it is seen that patients with obesity has more possibility of affliction with *Vatarakta*.

3. In this study, the patient with chronicity above 1year are falling majorly under 1-2years of duration, hence the result is similar on both above and below 1year of chronicity group.

4. Based on severity, *Jatiphala Taila* is almost equally effective in patients with *Madhyama* and *Avara Vyadhibala* and action over *Pravara Vyadhibala* patients couldnot be properly assessed as there was only 1 patient with *Pravara Vyadhibala* condition.

5. *Jatiphala Taila* showed better *Vatahara* action in the present study.

6. *Jatiphala Taila Abhyanga* showed significant result in *Shoola*, *Shotha*, *Stabdhata* and *Suptata* in *Vatarakta*. Hence it can be concluded that *Jatiphala Taila Abhyanga* is effective in *Vatarakta*.

7. *Jatiphala Taila Abhyanga* showed better result in *Vata Pradhana Vatarakta* compared to other varieties.

8. Overall effect of *Jatiphala Taila Abhyanga* on *Vatarakta* is 70.81%. *Jatiphala Taila Abhyanga* has shown statistically significant result in all the assessment parameters other than *Vakrata* due to the reason mentioned in the Discussion part of the study.

9. In this study, there were majority of patients with *Gambheera Vatarakta Lakshana* compared to *Utthana Vatarakta Lakshana*. Thus it can be concluded that incidence of *Gambheera Vatarakta* is more than *Utthana Vatarakta* in the present study.

10. Based on the clinical features, the disease *Vatarakta* can be correlated with various varieties of Arthritis.

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