

A Clinical study of Kokilaksha Ksheervasti in Rheumatoid Arthritis w.r.t. Vatashonita

Research article

Megha R Survase^{1*}, Vinodkumar G², Sonawane³

1. Assistant Professor, 3. Associate Professor Department of Panchakarma, CSMSS Ayurveda Mahavidyalaya, Aurangabad
2. Retired Professor & H.O.D Department of Panchakarma, Govt. Ayurveda College, Thiruvananthapuram.

Abstract

The present study was aimed to evaluate the efficacy of *kokilaksha ksheeravasti* in rheumatoid arthritis w.r.t. *vatashonita*. Rheumatoid Arthritis has great similarities to *vatasonitam* in *Ayurveda*. In the treatment principle of *Vatashonita*, shodhana therapy has been given prime importance. 15 patients fulfilling the criteria for the diagnosis of the disease were registered for the present study according to inclusion criteria. Initially Deepana, Pachana, Rookshana was done followed by administration of *kokilaksha ksheeravasti* for 7 days. Follow up period was of 15 days in which *guggultiktakam ghritam* was given. Assessment was done at clinical level and investigation level after the treatment and after follow up period. After Statistical analysis it can be concluded that *kokilaksha ksheeravasti* was effective in reducing the clinical signs and symptoms of Rheumatoid Arthritis.

Key words : *Kokilaksha ksheeravasthi, vatashonita, rheumatoid arthritis, guggultiktakam ghritam*

Introduction

Changing lifestyle, fast life, industrialization, changing food habits, stress and competition makes up a colony in which the man of present era is surviving. These factors have played an essential role to prick the mental and physical well being of a person, which in turn also reflects on social and spiritual well being. This has endangered the life of the person by giving rise to many dreadful diseases. One of such disease is

Rheumatoid arthritis, which is a chronic, destructive, inflammatory disease which can make a man to cripple unless timely interventions are done. The prevalence of Rheumatoid Arthritis is approximately 0.8% of the population (range – 0.3 to 2.1%), women are affected 3 times more often than men.(1)

The Rheumatoid arthritis has created universal interest among the research scholars, all over the world. In spite of lots of work done on these aspects, a complete cure of disease is still awaited. Many studies have been conducted on rheumatoid arthritis. Some scholars have conducted studies considering it as *vatashonita* while some as *amavata*; thereby trying to provide effective, safe and less complicated treatment.

*Corresponding Author:

Megha R Survase

Assistant Professor,
Department of Panchakarma,
CSMSS Ayurveda Mahavidyalaya,
Aurangabad

Email-drmegha26@gmail.com

Contact No - +91 - 8149888802

Rheumatoid arthritis is considered under the broad spectrum of *vatashonita*. There are similarities in the signs and symptoms of Rheumatoid arthritis and *Vatashonita*. *Agnimandya* is major cause of *rakta*(blood) vitiation whereas the *avarana*(covering) to *vata* by *rakta* is cause of *vata* vitiation. Thus the vitiated *vata* and *rakta* plays a major role in the pathogenesis of *Vatashonita*.(2)The line of treatment of Rheumatoid arthritis can be considered as that of *Vatashonita*. The treatment is aimed to remove the *avarana* of *rakta*, *strotoshodhana* and *vatanulomana*. In *ayurvedic* literature numbers of herbal preparations and also various panchakarma procedures are indicated in *Vatashonita*. *Ksheeravasti* has been given prime importance in *Vatashonita*.(3) Here, a clinical study to evaluate the efficacy of *kokilaksha Ksheersvasti* in Rheumatoid arthritis has been designed.

Aim and Objectives

- To study the efficacy of *Kokilaksha Ksheeravasti* in the management of Rheumatoid Arthritis.

Materials & Methods:

Source of Data and Method of Collection

15 patients fulfilling the criteria for the diagnosis of the disease were registered for the present study according to inclusion criteria. The Patients were selected from the O.P.D & I.P.D of department of Panchakarma, Govt. Ayurveda College, Thiruvananthapuram. Necessary investigations were carried out and their details were recorded in the special proforma.

Inclusion Criteria

- According to the revised criteria for classification of Rheumatoid Arthritis by American College of Rheumatology.
- Age group 30 – 60 years

- Sex: Female and Male
- Patient fit for Vasti
- Patient with written informed consent

Exclusion Criteria

- Patients having other arthritis disorders.
- Rheumatoid arthritis with gross deformity and complications.
- Those who have under gone surgical treatment in the affected joints.
- Pregnant Females.
- Juvenile arthritis.
- Patients with severe systemic diseases.

Investigations

They were investigated in the laboratory of Govt. Ayurveda Hospital, Thiruvananthapuram for routine Hematological test (Hb %, TLC, DLC, ESR, LFT, RFT, Lipid profile, RA factor).

Treatment Schedule

Initially *deepana*, *pachana* drugs were administered to correct the *amatwa* seen in the patients. The *amalakshanas* included *agni mandya*, *aruchi*, *klama* etc. For this *shaddharana choorna* and *Amruthotara kashaya* was advised to be taken twice daily. Those in whom joints swelling were present *lepana* and *dhanyamala dhara* were applied according to *avastha*. When *samyaka langhana lakshana* were seen, administration of *sodhana* procedure was done. Necessary assessments were done before treatment, after treatment, and after follow up of 15 days. Administration of *kokilaksha ksheeravasti* for 7 consecutive days was done.

Materials

- *Kokilaksha ksheerapaka* - 200ml
- *Guggulutiktakam Gritham* - 100ml
- *Madhuyastyadi Tailam* - 100ml
- *Madhu* - 100ml
- *Saindhava* - 5gms

Preparation of *kokilaksha Ksheeravasti*

Initially *madhu* and *saindhava* were added to the mortar and well ground with the pestle. After mixing them together, *Madhuyastyadhi Taila* was added in thin stream with continued grinding. It was followed by thin stream of liquified *Guggulutiktaka Gritha*. After a uniform mixture is obtained, *Kokilaksha ksheerapaka* was added in a thin stream while continuing the grinding. After all the contents were mixed to form a uniform mixture, it was filtered through a clean cloth and made luke warm with boiling watervapour. Then this mixture is churned with help of churner for a few minutes. The mixture obtained was uniformly mixed and done lukewarm. This was put in a clean and sterile thick plastic cover (*Vasti Putaka*) and *Vasti netra* made of plastic was tied to it, after plugging with cotton.

Administration of *kokilaksha Ksheeravasti* Poorvakarma –

Patient was asked to be empty stomach after their daily routine till *vasti* was introduced. At 10.30am they were given *abhyanga* with *pinda tailam* and *Bashpaswedam*. Their blood pressure and pulse rate were recorded.

Pradhankarma –

Patient was asked to lie in the left lateral position, for introduction of *kokilaksha Ksheeravasti*.

Paschatkarma –

Patient was asked to lie in the supine position till the urge of defecation occurs. They were asked to clear the bowels and take bath with hot water. The light food like rice was given with *Mudgayush*. Blood pressure, pulse rate, time of retention, number of evacuations and discomfort were observed. They were asked to take rest then and light food was given at night.

Post Vasti regime

After *kokilaksha Ksheeravasti*, patient was discharged and advised to follow *pariharakala*. They were told to avoid excess sitting, standing, speaking, travelling, day sleep, coitus, vegadharana, exposure to cold or sunrays, sorrow, anger, irregular and unwholesome diet for a period of 15 days. During followup period they were advised to take *Guggulutiktaka Gritha* 15ml twice a day after food.

Duration of Study

The study was carried out within 18 months.

Assessment of Response to Treatment

Both subjective and objective parameters were considered for assessing the response. To evaluate the changes in blood, laboratory findings were also included.

Clinical Assessment

The following parameters were used for assessment of clinical response.

1. Pain:

The visual analogue scale was adopted in the study.

2. Morning Stiffness

Mild	-	< 1 hr
Moderate	-	1-2 hrs
Severe	-	2-3 hrs
Very severe	-	> 3 hrs

3. Tenderness

Grade I	-	Patient complaints of pain.
Grade II	-	Patient winces with pain
Grade III	-	Patient winces and withdraws the affected parts
Grade IV	-	Patient will not allow the joint to be touched.

4. Joint Count:

Number of the inflamed joints represents the joint count.

Grade IV - Incapacitated or confined to bed or chair.

5. Joint Circumference:

Joint circumference of individual pairs of joints was assessed using a Simple measuring tape for the joint swelling.

9. Discoloration of skin

Discoloration present - 2(score) before treatment
 Discoloration reduction - 1(score) after treatment
 No discoloration - 0(score)
 No change in discoloration after treatment - 2(score)

6. Hand grip strength:

This was recorded using Sphygmomanometer. The de-inflated cuff of the instrument was rolled and inflated while the patient holds it with one hand. The height to which the mercury column raised when the patient just loses the grip was recorded. For avoiding inaccuracy in measurement, the mean of three measurements was taken.

Lab parameters used for assessment

- Hemoglobin percentage
- ESR
- RA Factor (dilution)

7. Joint mobility

- Grade I - Normal mobility
- Grade II - Slight restriction, can manage publicTransport.
- Grade III - Can cross roads, cannot manage public transport.
- Grade IV - Can use stairs, can go out, but cannot cross roads
- Grade V - Cannot use stairs.
- Grade VI - Can move from room to room with help.
- Grade VII - Confined to chair or bed.

Criteria for Assessing the Total Effect:

Considering the overall improvement in signs and symptoms shown by the patients, the total effect of the therapy had been assessed as below –

- Cured : 100% subsidence of presenting complaint
- Major improvement : More than 50% relief in the complaints of the patient
- Moderate improvement :25 – 50% relief in the complaints of the patient
- Mild improvement :Up to 25% relief in the complaints of the patient

8. Functional assessment

- Grade I - Can perform all activities
- Grade II - Moderate restriction of activities performed with difficulty due to pain or limitation of movement.
- Grade III - Marked restriction of activities

Statistical Analysis:

The efficacy of treatments was analyzed by calculating the mean, standard deviation of the parameters; t & p values were found using paired ‘t’ test.

Observation and Results

Table no.1 Data related to response to the treatment

Variables	Stage	Mean	SD	N	Mean difference	Paired t	p value	%Relief
Pain	BT	9.07	0.80	15				
	AT	5.27	1.16	15	3.80	26.252	<.001	26.5
	AFU	2.00	0.76	15	7.07	106	<.001	58.97
Tenderness	BT	2.53	0.52	15				
	AT	1.07	0.26	15	1.47	11.00	<.001	58.1
	AFU	0.93	0.26	15	1.60	12.220	<.001	63.24
Morning Stiffness	BT	3.47	0.52	15				
	AT	2.33	0.49	15	1.13	12.474	<.001	32.56
	AFU	1.40	0.51	15	2.07	31.00	<.001	59.65
Joint Mobility	BT	4.20	0.41	15				
	AT	2.13	0.35	15	2.07	31.00	<.001	49.28
	AFU	1.13	0.35	15	3.07	40.00	<.001	73.09
Joint Count	BT	20.53	1.60	15				
	AT	13.47	2.33	15	7.07	21.384	<.001	34.43
	AFU	13.47	2.33	15	7.077	21.384	<.001	34.43
Functional Capacity	BT	2.63	0.49	15				
	AT	1.53	0.52	15	1.13	12.47	<.001	42.96
	AFU	1.20	0.41	15	1.47	11.00	<.001	55.89
Grip Strength	BT	1.67	0.49	15				
	AT	3.60	0.51	15	1.93	29.00	<.001	86.52
	AFU	3.60	0.51	15	1.93	29.00	<.001	86.52
Joint Swelling	BT	1.60	0.51	15				
	AT	1.07	0.26	15	0.53	4.00	<.001	33.12
	AFU	1.07	0.26	15	0.53	4.00	<.001	33.12
Discoloration of skin	BT	2.00		10				
	AT	1.20	0.42	10	0.80	6.00	<0.001	40
	AFU	1.20	0.42	10	0.80	6.00	<0.001	40
Hb%	BT	10.34	0.51	15				
	AT	10.54	1.15	15	0.20	5.916	<.001	1.9
	AFU	10.76	1.11	15	0.41	6.54	<.001	4.06
ESR	BT	4.13	0.64	15				
	AT	2.20	0.41	15	1.93	16.358	<.001	46.93
	AFU	2.07	0.46	15	2.07	11.370	<.001	50.12
RA	BT	1.00		11				
	AT	0.73	0.47	11	0.27	1.936	>0.05	
	AFU	0.73	0.47	11	0.27	1.936	>0.05	

Table No.2 Overall Effect of the Therapy

Overall effects	Ksheeravasti			
	AT		AFU	
	No.	%	No.	%
Minor improvements	0	0	0	0
Moderate improvements	15	100	3	20
Major improvements	0	0	12	80
Complete cure	0	0	0	0

Discussion:

RA is one of the most debilitating disorders which affect the significant portion of the middle aged population dominated by the females all over the world. Its treatment is still a big question to the current mainstream medical science, making the patient dependent and bedridden gradually .The present study is aimed to evaluate the efficacy of *the kokilaksha ksheeravasti* in Rheumatoid arthritis.

The both *Ayurvedic* and modern texts and other publications, internet and other related research were referred for the same .Initially *deepana, pachana and rookshana* was done for correcting *the agni*, then followed by administration of *kokilaksha ksheeravasti* for 7 days. *Kokilaksha* is *vata pitha samana* drug and has been given prime importance in *vatasonita*(4) .*Ksheeravasti* is *mrudu nirooha* designed particularly for the *durbala, snigdha* in property. It also provides *samana* action with appropriate *vyadhihara* drugs. Then patient was discharged and the follow up period was of 15 days in which they were advised to take *guggulutiktaka ghrita* 15ml after food twice daily. The remnants of the *doshas* in smaller quantities following *shodhana* should be treated with *samana oushadhis*, so the patients were given *guggulutiktaka ghrita* for period of 15 days. The particular drug was selected considering the *gambheera avastha* of the disease and its special indication for *vatashonita*(5). The patients were advised

to maintain the contact as well as to note the changes that occurred.

It was observed from the data collected as a part of study, that majority of patients were females within the age group of 40-50 yrs .Most of the patients were doing household job and were having mixed food habits which may be contributory to the disease.

Maximum 60% of the patients were having 21 to 30 mins retention time followed by 31 to 40 mins in 20% patients, 11 to 20 mins in 13.33% and up to 10 mins in 6.66% patients Amongst *samyaka nirooha lakshanas prasrushta vita, prasrushta mutra, prasrushta vata and roga upashanti* were observed in all patients, followed by 80% patients with *ashaya laghavata* .

With regard to response to treatment

After treatment

Considerable improvement in all the parameters was noticed. Regarding hematological parameters considerable improvements were seen in Hb%, ESR was reduced but did not show any changes in RA factor.

Thus, it can be inferred that the *kokilaksha ksheeravasti* is effective in reducing signs and symptoms of the patients and also proved helpful in certain haematological parameter.

After follow up

All the parameters were highly significant .Considerable improvement in all the parameters were noticed. Regarding

hematological parameters considerable improvements were seen in Hb% .ESR was reduced but did not show any changes in RA factor.

Thus, it can be inferred that the *kokilaksha ksheeravasti* is effective in reducing signs and symptoms of the patients and also proved helpful in certain haematalogical parameter.

Thus for overall effect of therapy, it can be said that with *kokilaksha ksheeravasti* 80% patients showed major improvements and 20% showed moderate improvement.

Probable mode of action of Ksheeravasti

In the present study *kokilaksha ksheeravasti* was found to be more effective in reducing signs and symptoms of the patients In the study, *ksheeravasti* consisted of *kokilaksha ksheerapaka, guggulutiktaka ghrita, madhuyashtyadi taila, madhu and saindhava*. Clinically mainly the joint involvement is seen in the patients and the prime vitiating factors are the *vata and rakta*. The treatment should serve the purpose of *strotoshodhana* and *vatanulomana*. So a *nirooha yoga* that fulfills all the purpose was selected and modified accordingly, to correct *asthi vaha strotas* .*Ksheera vasti* is such an *vatagna yoga* that induces *bala, snehana* and when used with *tikta ksheera and ghrita*, it acts specifically on *asthi dhatu*. Its action is according to Arrunadatta's commentary(6) -"Any dravya which is *snigdha, shoshana* and produces *kharatva* is suitable for *asthikshaya* because basic quality of *asthidhatu* is *khara*. There is not a single dravya in the universe which is *snigdha* and *shoshana*. *Thikta* is the rasa which is having most *shoshana swabhava*, it produces *kharatva* which is the *pradhana guna* of *Asthidhatu*. *Thikta rasa* when combined with *ksheera* or *gritha* will improve the *dridatha* of *asthidhatu*, resulting in *asthiposhana* and *asthivardhana*.The combination of *tikta dravyas* with *ksheera* and *ghrita* fulfills

this purpose. Hence this *vasthi* being *vatahara* by nature, produces *kharatva* in the *shareera*, but does not cause *vataprakopa* because of *snigdhatva* of *ksheera* and *gritha*. *Ksheera* and *gritha* are the best dravyas in degenerative conditions. More over *vasthi* stays in *pakwasaya*, where *pureesha dhara kala* exists and does its action(7) *Pureeshadhara and Asthidhara kalas* are one and the same(8), *kharatva* produced in *Thikta gritha ksheera vasthi*, helps in normal formation of *asthidhatu* in *shareera*, thus improving the condition.

Conclusion

- Rheumatoid Arthritis is a type of polyarthritis with multisystem involvement caused by altered immune status.
- It is similar to *Vatashonita* in many aspects, caused by *Vatakopa* and *raktadushti* manifesting primarily in the *sandhis*.
- *Ksheeravasti* reduces the clinical signs and symptoms of RA.
- *Ksheeravasti* reduces ESR and also improves Hb% of the patients.
- *Ksheeravasti* enhances the general health status of the patients.

Limitations:

- Sample size was very small.
- The period of study was limited.
- Longer follow up was not done.
- Immunological parameters other than RA factor were not studied.

Recommendations:

- Longer follow up should be done.
- Effect on other immunological parameters other than RA factor should be studied.

- This study can be continued with repeated intervals of the treatment with large sample size.

References:

1. Dennis L Kasper.....(et al.) ,Harrison's Principles of Internal Medicine.16th ed.vol.2. McGraw Hill Companies ,Inc ;2005 ,1968p.
2. Vaidya Jadavji Trikamji Acarya,Caraka Samhita, commentary by Cakrapani, 2006 edition, Chaukambha Krishnadas academy, Chikitsa Sthana, Vatashonita Chikitsa Adhyaya 29/1, 627p.
3. Harishastri Paradkar, Ashtanga Hridaya, commentary by Arunadatta and Hemadri, published by Chaukambha Krishnadas academy 2006 edition chikitsa sthana adhyaya 22/13, 729p.
4. Harishastri Paradkar, Ashtanga Hridaya, commentary by Arunadatta and Hemadri, published by Chaukambha Krishnadas academy 2006 edition chikitsa sthana adhyaya 22/18, 730p.
5. Vaidya Jadavji Trikamji Acarya, Caraka Samhita, commentary by Cakrapani, Chaukambha Krishnadas academy, 2006 edition, Chikitsa Sthana,Vatashonita Chikitsa Adhyaya 29/31-34, 629p
6. Harishastri Paradkar, Ashtanga Hridaya, commentary by Arunadatta and Hemadri, published by Chaukambha Krishnadas academy 2006 edition sutrasthana adhyaya11/31, 187p.
7. Vaidya Jadavji Trikamji Acarya, Sushruta Samhita, commentary by Dalhana, , Chaukambha Orientalia, 2005 edition, shareer sthana adhyaya 5/16-17,365p.
8. Vaidya Jadavji Trikamji Acarya, Sushruta Samhita, commentary by Dalhana, Chaukambha Orientalia, 2005 edition, kalpasthana adhyaya 4/40, 574p.
