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**Research Article** 

# CLINICAL EVALUATION OF *VIRECHANA THERAPY* IN *AMAVATA* WITH SPECIAL REFERENCE TO RHEUMATOID ARTHRITIS

Uttam Kumar Sharma<sup>1</sup>, Vinod Bihari Kumawat<sup>2</sup>\*, Pawan Sharma<sup>3</sup>, Rashmi Bhaskar<sup>4</sup>, Surendra Kumar Sharma<sup>5</sup>

<sup>1</sup>Professor & Head, Dept. of Panchakarma, Gurukul Campus, Uttarakhand Ayurveda University, Haridwar, Uttarakhand. \*<sup>2</sup>Research Officer (Ayurveda), Scientist-2, M. S. Regional Ayurveda Research Institute for Endocrine Disorders, Jaipur. <sup>3</sup>Lecturer, Laxminarayan Ayurveda College, Amritsar, Punjab.

<sup>4</sup>P.G. Scholar, Dept. of Panchakarma, Rishikul, UAU, Haridwar, Uttarakhand.

<sup>5</sup> Associate Professor, Dept. of Roga and Vikriti Vigyan, National Institute of Ayurveda, Jaipur, Rajasthan.

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\*Address for correspondence

Avurveda Research Institute for

Dr. Vinod Bihari Kumawat

Research Officer (Ayurveda)

Endocrine Disorders, Jaipur

vinodbihari100@gmail.com

Scientist-2, M. S. Regional

Mob- 8003514251

#### ABSTRACT

*Amavata* is a disease of chronic joint and body pain, accompanied by a swelling of some or all of the synovial joints. These symptoms are typically accompanied by stiffness of joints, loss of appetite, indigestion, lack of enthusiasm, feeling of heaviness and fever.

Among *Shodhna* therapy described in *Ayurveda, Virechana* is mostly used in the disorders originated from vitiated *Pitta*. Along with this, it is also useful in the disorders in which *Pitta* is associated with *Vata* or *Kapha dosha*. It has direct effect on the *Agni Adhishthan* and also works on *Kapha* and *Vata Adhishthan*. Thus, it rectify not only *Pitta* but *Vata* and *Kapha Dosha* also.

A clinical study of 20 registered cases of *Amavata* revealed that *Virechana karma* is a very effective treatment of *Amavata*. This study proved the significance of *Virecana karma* on classical symptom of *Amavata* i.e., *Angamarda, Aruchi, Trishna, Jwara, Shoth,* etc. It reflects that *Virechana karma* is a potent *Shroto-vishodhna,* a good anti-inflammatory and pain relieving in patients of R.A.

Statistically significant results were found in Morning stiffness (83.02%, P<0.001), Swelling (81.67%, P<0.001), *Trishna* (56%, P<0.001), *Aruchi* (80.00%, P<0.001), *Gaurava* (85.37% P<0.001) and *Apaka* (81.39%). This study reveals that *Virechana* therapy is a very effective *Panchakarma* procedure with potent *Sroto Shodhana* effect to produce good anti- inflammatory and pain reducing feature in patients of R.A.

#### INTRODUCTION

Email:

*Amavata* is a disease of chronic joint and body pain, accompanied by a swelling of some or all of the synovial joints. These symptoms are typically accompanied by stiffness of joints, loss of appetite, indigestion, a lack of enthusiasm, a feeling of heaviness, and fever. If the condition is allowed to progress the pain may begin to migrate from one joint to another joint, with an intense sting or burning sensation. There may be scanty, frequent urination, and sleep may become disturbed. The digestion will continue to worsen, with bowel irritability and spasm, constipation, nausea and vomiting. There may be dizziness or angina, with profuse perspiration, extreme stiffness and episodic fainting.

The disease Rheumatoid Arthritis resembles *Amavata* of *Ayurveda*. The disease R.A. is chronic in nature and affects mostly the middle aged group. The onset is more frequent during 4th and 5th decade of life with 80% of patients developing the disease between the age of 35 and 50 years. Women are affected approximately 3-4 times more than men. Pregnancy is

often associated with remission of the disease in the last trimester with subsequent relapses after delivery.

No doubt Morden medicine has got an important role to play in overcoming agony of pain, restricted movement and disability caused by the articular diseases. Simultaneously prolonged use of allopathic medicines are not only giving rise to many side effects but also produce more serious complications like Gastrc-Peptic ulcers, Renal failure etc. *Shodhana* (biopurification), *Shamana* (pacification) and *Nidana parivarjanam* are main principles of treatment for disease in Ayurveda.

Due to wide spectrum, prevalence, chronicity of the disease in the society and lack of effective medicament, it was chosen for the study. The line of treatment described for the disease as *"Langhanam Swedanam Tiktham....."*<sup>3</sup> can be summarized under following captions.

1) Measures to bring *Agni* to normal state.

2) Measures to pacify or removal of Ama.

3) Measures to regulate vitiated Vata.

For the present study on *Amavata*, as *Shodhan* therapy *Virechana Karma* was chosen, as mentioned by *Chakradatta*.<sup>4</sup> To evaluate the effect of *Shodhana Karma on Amavata* this study was conducted. In addition to the joint pain, the patients of *Amavata* may have other symptoms various degree depending upon the severity and chronicity of disease i.e., *Angamarda, Aruchi, Trishna, Alasya, Gaurava, Jwara, Apaka, Angashoonata* etc. as *Samanya Lakshana* of *Amavata*.<sup>5</sup>

#### Virechana Yoga

The Contents of *Virechana yoga*<sup>6</sup> taken from Sharangdher Samhita Uttarkhand are as follows.

- 1. Trivrita
- 2. Haubeir
- 3. Root of Dhanti
- 4. Saptala
- 5. Katuki
- 6. Root of Satyanashi
- 7. Goumootra as Bhavna dravya

#### **Materials and Methods**

20 cases suffering from *Amavata* were selected from O.P.D and I.P.D of Panchakarma of Rishikul Campus, Uttarakhand Ayurveda University Haridwar, on the basis of a specific proforma prepared according to signs and symptoms of *Amavata* as described in Ayurvedic texts and symptoms of Rheumatoid Arthritis.

#### A. Inclusion Criteria

The diagnosis of these patient was confirmed on the basis of recent criteria laid down by "American Rheumatism Association(1987)".

- i. Presence of Morning stiffness
- ii. Arthritis of three or more joints
- iii. Arthritis of hand joints
- iv. Symmetric arthritis
- v. Rheumatoid nodules
- vi. Rheumatoid factor
- vii. Radiographic changes
- viii. Age between 12-60 years.
- ix. Chronicity between 6 weeks to 5 years.

Presence of minimum of four features with a duration of 6 weeks or more was taken as the criteria for inclusion. *Amavata* was diagnosed according to the presence of clinical features described in *Madhav Nidana* Chapter (25/6-10). All the patient were examined and assessed by detailed history, through clinical examination and relevant laboratory investigations to establish final diagnosis.

2. Age between 12-60 years.

#### **B.** Exclusion Criteria

- 1. Age below 12 year and more than 60 year.
- 2. Patient associated with following extra-articular manifestations:
- 3. Pleuropulmonary involvement
- 4. Sjogren's Syndrome

- 5. Felty's Syondrome
- 6. Neurologic involvement Subluxation or nerve entrapment etc.
- Any evidence of joint tuberculosis, gout, O.A, Arthritis with malignancy, Osteomyelitis, Rheumatic fever, Osteoporosis.<sup>8</sup>

#### **Criteria of Assessment**

All the patients registered for the clinical trial were selected for their demographic profile like age, sex, marital status, *Deha* and *Manas prakriti* etc. During the trial and follow up study the patients were assessed on the following parameters.

- i. Subjective Improvement
- ii. Clinical Improvement
- iii. Functioning Improvement
- iv. Haematological Changes
- v. Radiological Changes

#### i. Subjective Improvement

Attempts were made to elicit the subjective improvements produced by the procedure and drug under trial. Patient were specifically asked about growing feeling of well being and improvement of joint functions.

#### ii. Clinical Improvement

For the assessment of clinical improvement, The incident of presenting features were worked out and the severity of the symptoms rated in each case. For this purpose the following "Symptoms Rating Scale" was used in all below mentioned symptoms except number of joint involved in which exact number of involved joint were noted. In this scale various symptoms are graded into different grades as shown below:

-	Absent	0
+	Mild	1
++	Moderate	2
+++	Severe	3
++++	Agonizing	4

The details of assessments of the symptoms studied were as follows:

### 1. Morning Stiffness

- 0. No Stiffness.
- 1. Stiffness lasting for <sup>1</sup>/<sub>2</sub> hour or 30 min.
- 2. Stiffness lasting for 30 min to 1 hour.
- 3. Stiffness lasting for 1 hour to 4 hour.
- 4. Stiffness lasting for > 4 hour.

#### 2. Joint Pain

- 0. No pain.
- 1. Mid pain of bearable nature, comes occasionally.
- 2. Moderate pain but no difficulty in movement of joint, appears frequently and requires some major for relief.
- 3. Severe pain with slight difficulty in joint movement, remain throughout day and require medication.

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4. Agonizing pain with more difficulty in joint movement, disturbing the sleep and require strong analgesics.

## 3. Swelling on Joint

- 0. No Swelling.
- 1. Slight swelling.
- 2. Moderate swelling.
- 3. Severe swelling with diurnal variation.
- 4. Severe swelling without diurnal variation.

# 4. Restriction of Movements

- 0. No restriction.
- 1. Mid restriction with discomfort.
- 2. Moderate restriction, activities possible after some efforts.
- 3. Severe restriction, activities possible after maximum efforts.
- 4. Total restriction of movements.

## 5. Number of Joints Involved

Exact number of involved Joints was noted in these criteria. Each Joint of either side(right or left) was counted as a individual Joint.

## 6. Diffuse Musculoskeletal Pain (Angamarda)

- 0. No musculoskeletal pain.
- 1. Occasional musculoskeletal pain but patient is able to do work .
- 2. Continuous musculoskeletal pain but patient is able to do work.
- 3. Continuous diffuse musculoskeletal pain which hampers routine work.
- 4. Due to continuous diffuse musculoskeletal pain patient is unable to do any work.

# 7. Anorexia (Aruchi)

- 0. Normal desire for food.
- 1. Eating timely without much desire.
- 2. Desire for food, little late, than normal time.
- 3. Desire for food, only after long intervals.
- 4. No desire at all.

# 8. Thirst (Trishna)

- 0. Normal feeling of Thirst.
- 1. Frequent feeling of thirst, but quench with normal amount of liquids.
- 2. Satisfactory quench after increased intake of fluids but no awakening during nights.
- 3. Satisfactory quench after increased intake of fluids with regular awakening during night.
- 4. No quench after heavy intake of fluids.

# 9. Malaise (Alasya)

- 0. No malaise.
- 1. Starts work in time with effort.

# d. Functional Index

- 2. Unable to start work in time but completes the work.
- 3. Delay in start of work and unable to complete.
- 4. Never able to start the work and always like rest.

## 10. Fatigue (Gauravata)

- 0. No fatigue.
- 1. Occasional fatigue but does usual work.
- 2. Continuous fatigue but does usual work.
- 3. Continuous fatigue which hampers usual work.
- 4. Unable to do any work due to fatigue.

## 11. Fever (Jwara)

- 0. No fever.
- 1. Occasional low grade fever once or twice a week.
- 2. Occasional fever in range of 99.4° to 101° F with frequency 3 to 5 times a week.
- 3. Rise in temperature at least once a day.
- 4. Continuous low or high grade fever.

# 12. Indigestion (Apaka)

- 0. Normal digestion.
- 1. Occasional indigestion once or twice a week in one meal
- 2. Occasional indigestion 3 to 5 times a week in one meal.
- 3. Indigestion 3 to 5 times a week in both meals.
- 4. Indigestion after every meal.

## iii. Functional improvement

Following method were used in the selected patient for the assessment of functional status and to assess the pattern of functional recovery:

- **a. Grip power:** This test represent the functional capacity of joint of upper extremities specially the smaller joint of hand and wrist. The patients were asked to hold the inflated cuff of sphygmomanometer in their hands and press it with a grip. The reading obtained in mmHg were recorded as grip power.
- **b. Pressing power of the hands:** This also denotes the functional status of hands and wrist joints. The patients were asked to press on the inflated cuff of sphygmomanometer and the manometer changes were recorded in mmHg.
- **c. Walking Time:** This is the time taken by an individual to walk a given distances. It depends upon the functional status of knee, ankle, hip and smaller joints of feet. Whenever any joint of lower extremities is involved, the time taken in covering the same distance is increased. In the present study a distance of 10 meters was fixed for the purpose.

### Table 2: It is based on following functional rating scale

0	Fit for all activities – No handicap
1	Moderate restriction – Independent despite some limitation of joint movement
2	Mild restriction – limited self care. Some assistance required
3	Marked Restriction-Very limited self care. More assistance required
4	Confined to chair or bed bound – Largely incapacitated and dependent

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## Administration of Drug

20 clinically diagnosed cases of *Amavata* (RA) was registered and were subjected for *Virechana Karma*. **OBSERVATION AND RESULTS** 

Table 5. Effect of That on Symptoms											
Parameter	B.T.	A.T.	Diff	%	S.D	S.E.	'ť'	Р			
Morning Stiffness	2.65	0.45	2.2	83.02	1.19	0.27	8.2	<.001			
Joint Pain	2.6	1.15	1.45	55.77	0.60	0.14	10.7	<.001			
Swelling of Joints	3	0.55	2.45	81.67	0.99	0.22	10.97	<.001			
Restriction of joint movement	3	1.2	1.8	60	0.52	0.11	15	<.001			
No. Of joints involved	3.7	1.15	2.55	68.92	0.51	0.11	22	<.001			
Diffused musculoskeletal pain	2.85	0.75	2.1	73.68	0.85	0.19	11.02	<.001			
Aruchi	2.8	0.65	2.1	75	0.67	0.15	14	<.001			
Trishna	2.78	1.2	1.56	56	0.53	0.17	8.85	<.001			
Alasya	2.78	1.1	1.7	61.54	0.47	0.12	13.68	<.001			
Gaurava	3.15	0.46	2.7	85.37	0.48	0.13	20.21	<.001			
Jawara	0	0	0	0	0	0	0	<.001			
Apaka	2.39	0.44	1.94	81.39	0.80	0.18	10.28	<.001			

**Table 3: Effect of Trial on Symptoms** 

### **Table 4: Effect of Trial on Functional Changes**

Parameter		B.T.	A.T.	Diff.	%	S.D.	S.E.	'ť	Р
Grip Power (mm of Hg)	Rt. Hand	103.2	174.1	70.9	68.70	17.37	3.88	18.3	<.001
	Lt. Hand	90.6	162.3	71.7	79.14	22.10	4.94	14.5	<.001
Pressing Power (mm of	Rt. Foot	13.65	22.35	8.7	63.74	3.6	0.80	10.7	<.001
Hg)	Lt. Foot	10.7	15.5	4.8	44.86	2.3	0.51	9.4	<.001
Walking Time (Sec)		52.55	24.55	28	53.28	7.4	1.7	16.87	<.001
Functional Index		2.15	0.4	1.75	81.39	0.79	0.17	9.9	<.001

## DISCUSSION

- *Deepan Pachan- Trikatu Churna* 3 gms two times a day with water was given for 3 days
- *Snehapana* with *Shunthyadi Ghrita* was done for 5-7 days.
- *Sarvanga Abhyanga* and *Sarvanga Swedana* was done for 2 days
- *Virechana yoga* was given in the dose of 15-25gm with lukewarm water for *Virechana Karma*
- After *Virechana Karma Sansarjana Karma* was done for 5 to 7days

In the patients highly significant improvement was seen in all cardinal and associated symptom of the disease *Amavata* with physical activities.

### CONCLUSION

*Virechana* therapy showed highly significant relief in almost all clinical features. Statistically significant results were found in morning stiffness (83.02%, P<0.001), swelling (81.67%, P<0.001), *Trishna* (56%, P<0.001), *Aruchi* (80.00%, P<0.001), *Gaurava* (85.37% P<0.001) and *Apaka* (81.39%). Functional assessment parameters has shown highly significant improvements.

This study reveals that *Virechana* therapy is a very effective *Panchakarma* procedure with potent *Sroto* 

*Shodhana* effect to produce good anti- inflammatory and pain reducing feature in patients of R.A.

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