

Efficacy of Erand Sneha (Castor oil) in the management of Amavata (Rheumatoid arthritis) with respect to its Sama Stage

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ABSTRACT

BACKGROUND: As a result of its long-term, incurable nature, complications, and morbidity, Amavata (Rheumatoid arthritis) is one of the most difficult diseases for doctors to treat. Sneha (castor oil) possesses qualities that stimulate digestive fire, enter into micro-channels and eliminate blockage from these channels, soothe Vata and Kapha Doshas, and remove them via purgation.

AIM: For the purpose of determining the efficiency of Castor oil in the treatment of the acute stage of Amavata's Sama condition. **MATERIALS & METHODS:** The OPD and IPD of Roga-Nidana Evam Vikriti Vijnana, department of I.P.G.T. & R.A., Gujarat Ayurved University, Jamnagar, were used to identify 61 patients aged 20-60 years who met the inclusion criteria and had symptoms of the Sama stage. Eranda Sneha (Castor oil) was administered alone or in combination with Shunti (Zingiber officinale) once a day on an empty stomach in two separate groups of patients.

RESULTS: Both groups had comparable clinical improvement after a 15-day course of treatment. Only group A showed a moderate improvement in both objective and subjective criteria in the overall evaluation of treatment.

CONCLUSION: Research shows that Zingiber officinale combined with Castor oil is efficient in removing Amavata's Sama stage and providing symptomatic relief.

Keywords: Amavata, Castor oil, Rheumatoid arthritis, Zingiber officinale

Introduction

The development of many illnesses is facilitated by a regular consumption of elements that affect the condition of digestive fire at all levels, i.e. intestinal, subcellular, and

cellular. Mandagni, according to Ayurveda, is the root cause of all illness (diminished digestive fire). [2] More people are suffering from Rheumatoid arthritis (RA) in the 21st century than ever before. RA affects around

0.8% of the global population. Three times as many women as men are impacted. It is a multisystem chronic inflammatory joint condition. Symptoms often begin in the 4th and 5th decade of life, but may afflict anybody at any age in any environment. Infectious triggers, a genetic predisposition, and an autoimmune response are all possible causes of RA.

Fatigue, anorexia, weakness, and fast development of polyarthritis accompany the disease's insidious and sudden onset, as do constitutional symptoms including fever, lymphadenopathy, and splenomegaly. Asymmetrical engagement is common. Pain, swelling, soreness, and a painful restriction of mobility are all hallmarks of this condition. There may be general stiffness, but morning stiffness lasting more than an hour is a common feature. Some of the most often affected joints include those in the hands, wrists, knees, and the metacarpophalangeal and proximal interphalangeal joints in the foot. [3] As DMARDs, steroids and NSAIDs have been demonstrated to have a detrimental influence on the immune system and only provide short-term relief, it is a difficult illness for doctors and the medical community to treat. However, there has yet to be a successful medical solution to this condition. Bone and joints are the primary sites for the presentation of cardinal symptoms including pain, edoema, and stiffness of joints in Amavata, the illness of Madhyama Rogamarga.

Disease is caused by the imbalance of the three body humours, although Ama and a vitiated Vata play the most important role. Vata is the second word in the phrase Amavata. If food digestion is inadequate or wrong, the resulting chyle, known as Annarasa, circulates through the body and reaches the target cell, where it causes symptoms such as weight gain, weakness and sleepiness, it aggravates Vata and impedes the body's ability to properly eliminate waste products. Amavata is characterised by aches and pains throughout the body, an unwillingness to eat, excessive thirst, a high

temperature, problems digesting meals, and swelling in the afflicted joints. [4] As the illness worsens, it becomes more difficult to treat. Ama has all of the symptoms listed, hence a medicine with Ushna (hot), Tikshna (strong), and Deepana (medium) is needed

Criteria of Assessment

1) Subjective:

2) A. Symptoms in the immediate area

3) The signs and symptoms that affect the whole body

4) Objective:

As a first step, we need to have a look at the data

Biochemical and other haematological measurements.

As a measure of disability (the Indian health assessment questionnaire)

Walking time, foot pressure and hand grip have all become better over time.

Clinical assessment: - On the zero day (i.e. the day before delivering the trial medicine), on the 5th, 10th, and 15th days following treatment, cardinal and related symptoms were assessed and documented. An acceptable scoring technique was used to evaluate changes in the patient's signs and symptoms.

Functional Assessment

Walking time: To record time, patients were instructed to walk 50 metres.

Hand Grip: Patients were instructed to squeeze the inflated cuff of the sphygmomanometer and the grip strength was measured in millimetres of mercury (mm Hg).

Foot pressure: Foot pressure was measured using a weighing machine in order to provide an objective perspective of the leg's functional capability.

Following statistical test has been applied in this work- The Wilcoxon signed rank test, the unpaired 't' test, and the paired 't' test all compare two groups based on subjective criteria (for same group).

Software used: All of the statistical analysis was done with the help of Sigma programme.

Observations & Results

61 patients signed up in all; 53 finished therapy, while 8 dropped out. 31 people signed up for group A, 28 of them finished the course and three dropped out. Group B had 30 patients enrolled, of whom 25 finished the study and five dropped out.

Patients aged 41 to 50 comprised 31.14 percent of the total population. There were 59.01 percent females and 68.85 percent of them were housewives. After elementary school, 26.22 percent of the population was illiterate (24.59 percent). In the lower middle class, 34.42 percent of people lived. The urban region comprised 70.49 percent of the total. 78% of those polled were vegetarian. More over half of those surveyed reported a history of eating a sour diet. Oily and fatty diets were followed by cold items in 81% of cases (70.49 percent). A total of 27.86 percent of patients experienced sleep problems, whereas 85.24 percent slept during the day. Krura Koshta was in the possession of 50.81 percent of those surveyed (hard and constipated stools). In 72.13 percent of cases, the digestive fire functioned in a decreased capacity or was irregularly functioning (11.47 percent). 68.85% of those surveyed reported having an unsatisfactory or irregular bowel movement (44.26 percent). 54.09 percent of those polled reported excessive urination (polyuria). Sixty-six percent of the women who took part in the study had a history of normal birth, followed by an abortion (19.44 percent) and LSCS (13.88 percent). 63.93% of the participants possessed Vata-Kaphaja Sharira Prakriti. A whopping 80.32 percent of those tested positive for the rajajasa-tamasika manasa prakriti. All three Avara Saras (14.75%), 9.83%) and 57.37 % possessed Avara Satva, the most common kind of Avara. There were 31.14 percent overweight people and 18.03 percent overweight people in the United States in 2013. Madhyama Satmya was present in 88.52 percent of those tested. More than seven out of ten people had avara ahar shaktipat. Hani Awastha (old age) accounted for 59.01 percent of patients, whereas Sampurnata patients accounted for 37.70 percent. Avastha

(Adult) and 3.27% of Yuva Awastha. The Dosha Avastha in the patients are represented in table 1.

Table 1. Dosha Avastha in patients enrolled

<i>Dosha</i>	<i>Vridhhi</i>	<i>Kshaya</i>
<i>Vata</i>	31.14%	4.91%
<i>Pitta</i>	22.95%	47.54%
<i>Kapha</i>	34.42%	1.63%

60.65 percent had a bad family history, followed by 39.34 percent with a favourable family history. 42.62 percent of the patients had been sick for 1 to 5 years. 86.80% of the cases were gradual. Pain and stiffness affected everyone, and 95.08 percent of those people also experienced soreness and edoema in their affected areas. Following the laziness, 83.60 percent of the patients displayed laziness, followed by 78.04%, 770.44%, 721.33%, 62.293%, 442.66% and 344.22% of the patients with characteristics of numbness, heavy body, body achy, disrupt sleep, gargling sound in the belly, giddiness, and burning feeling accordingly. There was 57.37 percent thirst, polyuria and constipation among the patients who were examined, and 55.73 percent reported a lack of appetite. 81.96% said that chilly wind, sour taste, and exercise were the most aggravating variables for them, followed by sleep deprivation (96.72%), morning time (98.36%), and exertion (96.72%). (90.16 percent). Recuperation rate was the highest at 95.08 percent, followed by warm water (91.8 percent) and warm food (91.80 percent) (49.18 percent) Rasavaha Srotodushti lakshana was also found in 93.44 percent, 70.49 percent, and 42.62 percent of the samples.

Annavaha, Asthivaha, Purishvaha, Mutravaha, Majjavaha, and Medavaha Shrotodushti symptoms were present in 40.98 percent, 16.39 percent, and 4.91 percent of people. One-eighth of the patients had joint crepitation; the remainder had Boutonniere deformity, ulnar deviation, and Swan neck deformation. 72.13 percent had a decreased digestive fire, followed by 62.29 percent who were eating a diet that

was not suitable. A high-fat diet, repression of natural desires (70.49 percent), and unwholesome activities were followed by 75.40 percent of participants engaging in physical activity (11.47 percent). Anxiety accounted for 80.32 percent of all cases, followed by tension (34.42%), anger (22.95%), despair (22.95%), and fear (22.95%). (4.91 percent).

Comparison of effect of therapy between group A and B

The Wilcoxon signed ranked test indicated statistically insignificant results when comparing the impact of treatment on chief complaints in the two groups. This suggested that there were no significant differences in effect between the two groups. Sandhishotha and Sparshasahatva, on the other hand, had a higher proportion of alleviation after treatment with Group A than with Group B. When it came to Sandhishoola and sandigraha, Group B performed much better than the control group (Table 2).

Table 2: Comparison of effect of therapy on chief complaints

Chief complaints	Group	n	Median	Relief %
<i>Sandhishoola</i>	Group A	27	1.00	37%
	Group B	25	1.00	45.97%
<i>Sandhishotha</i>	Group A	27	1.00	50.97%
	Group B	23	1.00	48.79%
<i>Sandhigraha</i>	Group A	27	1.00	60.03%
	Group B	25	1.00	66.66%
<i>Sparshasahatva</i>	Group A	27	1.00	50.87%
	Group B	25	1.00	50%

Table 3: Comparison of effect of therapy on associated symptoms

Associated symptoms	Group	n	Median	Relief %
<i>Angamarda</i>	Group A	27	0.00	55.55%
	Group B	21	0.50	48.37%
	Group A	13	0.00	40.62%

<i>Aruchi</i>	Group B	19	0.00	60.07%	0.688
<i>Trishna</i>	Group A	22	0.50	44.43%	-0.595
	Group B	23	0.00	40.02%	
<i>Alasya</i>	Group A	23	0.50	40.70%	-0.218
	Group B	25	0.10	44.73%	
<i>Jwara</i>	Group A	14	0.000	81.27%	0.721
	Group B	16	0.000	50.03%	
<i>Apaka</i>	Group A	16	0.000	87.5%	-1.147
	Group B	20	0.000	53.33%	
<i>Gaurav</i>	Group A	17	0.000	57.16%	1.213
	Group B	24	1.000	55.21%	
<i>Anga-Shunyata</i>	Group A	19	1.000	77.14%	-0.790
	Group B	23	1.000	48.79%	
<i>Bahumutrata</i>	Group A	21	0.000	46.12%	1.414
	Group B	20	0.500	53.57%	

There were no significant differences in the effectiveness of treatment on related complaints when the Wilcoxon signed rank test was used to compare the two groups, indicating that there were no substantial differences between them. Clinically, however, Group A exhibited superior results in alleviating symptoms such as Angamarda, Jwara, Apaka and Gaurav than Group B in alleviating symptoms such as Alasya, Bahumutrata and Aruchi (Table 3). Unpaired 't' tests used to compare the effectiveness of therapy on functional parameters showed statistically insignificant results for all but foot pressure, suggesting no significant differences in effect between the two groups. A significant result indicates that group A patients had a measurable and better outcome than group B patients (Table 4).

Table 4: Comparison of effect of therapy on functional parameters

Functional parameters	Group	n	Mean	Relief %	Mean difference

Walking time	Group A	28	3.21	7.5%
	Group B	25	3.32	9.35%
Hand grip	Group A	56	-5.433	9.36%
	Group B	50	0.500	10.80%
Foot pressure	Group A	56	2.242	1.19%
	Group B	50	11.277	2.32%
Disability index	Group A	27	0.607	40.46%
	Group B	25	0.480	47.26%

Table 5: Comparison of effect of therapy on serological parameter

Serological parameter	Group	n	Mean	Relief%
R.A. factor	Group A	28	10.618	3.70%
	Group B	25	25.184	7.40%
C.R.P	Group A	28	3.914	43.16%
	Group B	25	3.056	12.44%
A.S.O.	Group A	28	-16.218	12.97%
	Group B	25	124.920	25.91%

Although there were no statistically significant differences between the two groups when evaluating the effectiveness of treatment on serological markers using an unpaired 't' test, the ASO titre indicated a significant difference between patients in groups B and A. According to the results of this research, Group A exhibited moderate improvement in 35.71 percent of patients, which equates to alleviation ranging from 50 to 74%, whereas only 20% of patients in Group B showed the same improvement. Group A seems to have done a better job of decreasing patient complaints than Group B. (Table 5).

Discussion

As many as 80% of those who participated in this study were female, which supports previous research that found a greater incidence of RA in females, as shown in this study. The condition was triggered by a history of reduced physical activity, lethargy, and

daytime sleep deprivation in the majority of the affected population, which was concentrated in metropolitan areas. In accordance with Charaka Samhita's reference, impaired appetite and IS. The majority of patients had elevated levels of metabolism. Patients with more than two years of chronic illness had a history of using DMARDs, steroids, and anti-inflammatory drugs (NSAIDs), all of which have a deleterious effect on the immune system. As a result, patients of this kind need long-term therapy and careful adherence to Pathyasevana (diet and exercise) in order to improve.

There were no significant differences between the two treatment groups in the statistical analysis of primary complaints and their related symptoms. Both ESR and ASO titres rose in group A whereas CRP fell in both groups on paired "t" tests for serological parameters. Patients also responded better symptomatically when ASO and ESR increased although CRP levels decreased dramatically over the research. Despite the lack of a scientific explanation for this sort of reaction, additional examination and research are needed to comprehend the same..

How Eranda Sneha may go about her business In addition to its ability to penetrate into micro channels and remove obstruction in them, Eranda Sneha is also a potent digestive stimulant and a Vata Shamaka drug because of its Snigdha Guma, and finally enters the Dhatu level (cellular level) where it acts as an Ama Pachaka and Kapha Shamaka drug.

[7]Shunti's most likely method of actionKatu Rasa and Ushna Virya characteristics of Shunti make it an effective Kapha Shamaka medication. It enhances the digestive fire and functions as a Vata Shamaka because of Madhur Vipaka [8]. Due to its Shamaka characteristics, Shunti may help alleviate the symptoms of Amavata at the Sama stage, which is the most common stage of the disease. There was a slight to moderate improvement in almost all of the main complaints such swollen joints and stiffness, along with the accompanying symptoms such as lack of appetite, sleepiness, polyuria, fever and

excessive thirst in both groups. It's possible that the presence of Shunti, which has Amapachaka and Vata-Kapha Shamaka properties, may have contributed to group A's more successful outcomes than group B's, but this isn't conclusive. On the basis of all complaints, related symptoms, functional improvement, and serological examinations, group A exhibited a superior overall improvement than group B. This indicates that the extra Shunti in group A is responsible for the increased effectiveness.

Conclusion

Clinical effectiveness cannot be ruled out, even if statistical analysis shows no difference between the two groups of therapy. Consequently, we can say from this study's findings that Eranda Sneha, on its alone or in conjunction with Shunti, is successful in the Sama stage of Amavata; however, clinical addition of Shunti has assisted in improving the patient's overall state.

References

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