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CLINICAL EVALUATION OF SHODHANA AND SHAMANA CHIKITSA IN THE MANAGEMENT OF AMAVATA VIS-À-VIS RHEUMATOID ARTHRITIS

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ABSTRACT

Ayurveda has answer to many newly emerging diseases as an alternative without side effects. Rheumatoid arthrits being the most appropriate example. In the present study, we have considered rheumatoid arthritis parallel to *amavata* and studied the effect of *rasonapinda* and *vaitaranavasti*, a traditional *ayurvedic* therapy, on it. 40 patients of *Amavata* were selected and randomly divided into two groups A and B. Group A was trial group and group B was control group. Group a received *rasonapinda*along with *VaitaranaVasti*group B received indomethacin orally, duration of treatment for both the groups was 45 days with a follow up every 15th day. The drugs are described in *Chakradatta Amavatadhikara* and *Chakradatta Niruhadhikara* respectively. Results were assessed according to a specially prepared grading system. On comparing the results in the two groups it was found that the difference was highly significant with improvement in almost all the symptoms in group A. The study suggests that *Ayurveda* can provide a better alternative in the management of rheumatoid arthritis.

Keywords: *Amavata,* Indomethacin, *Rasona Pinda*, Rheumatoid Arthritis,*VaitaranaVasti*.

INTRODUCTION

The modern society is facing major problems due to changes in lifestyle which are in a very appropriate way termed as lifestyle disorders. Rheumatoid arthritis is the major one among them. Rheumatoid arthritis is the 42nd leading cause of increased no of YLD (years lived with disability) at global level [2]. It is an autoimmune inflammatory diseases of chronic multiple organ systems and of unknown etiology. Characteristic feature is persistent inflammatory synovitis, usually involving peripheral joints in a symmetric distribution. If left untreated, leads to joint destruction, which is responsible for the deformity and disability seen in this disease. In terms of symptoms, the disease resembles *Amavata*.*Amavata* is one of the commonest disorders caused by the impairment of *agni*, formation of *ama* and vitiation of *vata*[3]which initially creates difficulty in performing daily works which goes on increasing and further leads to deterioration in the form of physical deformities as well as mental frustration.

Ayurveda believes that not only relieving symptoms but the complete cure of the disease is the duty of a *vaidya* (physician). In Ayurveda, treatment is broadly divided as*shamana* (disease pacifying) and *shodhana* (purifying). The science insists on finding out the root cause behind a disease and then showing it the way out of the body. No disease is considered without *doshas* as the origin. So removal of the excess of *doshas* out of the body forms the mainstay of Ayurveda *chikitsa*. The small amount of it that remains back after *shod-*

hana is pacified by *shamanaaushadhi*. In this trial, Vasti(medicated enema) in the form of *VaitaranaVasti* has been selected as *shodhana* and *Rasona Pinda* has been selected as *shaman* therapy.

Allopathic drugs are insufficient for complete eradication of disease. Moreover, treatment according to modern science is expensive, prolonged, creates many side effects and affects the quality of individuals to larger extent.Thus the study was designed to find out a drug or a management schedule that is effective in the management of *amavata* vis-à-vis rheumatoid arthritis, is easy to be administered, is free of side effects avoids landing into complications.

MATERIAL AND METHODS:

Preparation of drug:

The drugs were prepared according to method of preparation as described in *Chakradatta*[4,5]. The quantity of ingredients in metric measurements was decided according to Ayurvedic Formulary of India. *Vaitarana Vasti* was prepared as per the classical method used for the preparation of *Niruha Vasti*[6]

Time of Administration:

It is a *Niruha Vasti* that can be given after the meals [5]

Patient selection: 40 patients of Amavata were registered from Kayachikitsa OPD, Sir Sundarlal Hospital, BHU, Varanasi.The case selection was random regardless of age, sex, occupation and socio-economic conditions. Both acute and chronic phase of *Amavata* patients were taken for the study, following The 1987 revised criteria by American college of Rheumatology for diagnosis of Rheumatoid arthritis[7] and the clinical features of *Amavata* described in *Madhava Nidana*[3].

The selected patients were subjected to clinical examination laboratory investigations after registration and after completion of treatment.

INCLUSION CRITERIA

1. The patients of Rheumatoid Arthritis with mild, moderate and severe degree of presentation were included in the present study.
2. Seropositive and Seronegative both cases were included in present study.
3. The patients included will be within age group of 15- 65 yrs.

EXCLUSION CRITERIA

1. The patients having severe degree of deformities.
2. The patients having severe ankylosed joints.
3. The patients with major complications were also excluded
4. The patients on corticosteroid therapy.
5. Patient of rheumatic arthritis, septic arthritis osteoarthritis and gouty arthritis or any other type of arthritis.

ASSESSMENT OF DISEASE:

A. Clinical assessment :

Decrease in pain, swelling, of the joints and increase in General Functional Capacity. The relative extent of all these criteria was recorded according to the rating scales [Table 1] in each patient at the initial stage and at subsequent follow ups.

B. Functional assessment

Decrease in walking time.

C. Laboratory profile :

Total leucocytes count, Differential leucocytes count, Hemoglobin, Erythrocyte Sedimentation Rate,C-Reactive Protein (C-RP titre), Rheumatoid factor (RA titre)

TREATMENT SCHEDULE

The patients from group A were given *Rasona Pinda[*1 g –TDS with lukewarm water for 45 DAYS]and *Vaitarana-Vasti*[in the format of *Yoga Vasti* with *Anuvasana* of *Saindhavadi Taila*for 2

times at interval of 15 days.350 ml *Vastidravya*was used]and patients from group B were given Indomethacin[75 mg OD orally for 45 days]. For both groups, follow up was done on every 15th day that is on 15th, 31st and 45th day.

STATISTICAL ANALYSIS

The result was assessed on the basis of relief in symptoms and serological tests.

- Comparison between two groups (Intergroup Comparison) was done using Mann Whitney test.
- Intra group comparison was done using Friedman's test.
- Comparison of Mean was done by one way Annova test, Wilcoxan's signed rank test, paired t test and Mann Whitney test as per requirement.

The data was assessed for its statistical significance.

RESULTS

On the basis of symptoms and examinations on third follow up, the effect of therapy was assessed. Maximum effect with significant relief was observed in-pain (50% with no pain) [Table 2],tenderness(56.2% with no tenderness)[Table 3]. Improvement was observed on examination in General Functional Capacity(50% with Grade 1)[Table 4]walking time was decreased(37.5% each with Grade 0 and Grade1)[Table 5], at the third follow up. On comparing group A with group B, the difference in effect of therapy was highly significant in every sign and symptom.

According to laboratory findings, the reduction in R.A. factor, CRP titre and ESR level was highly significant in group A after completion of therapy. In group B, this was highly significant only in ESR levels. There was significant rise in Hb% in patients of group A [Table 6].

DISCUSSION

In the pathogenesis of Amavata, *ama* and *vata* are the chief pathogenic factors, but the disease represents the vitiation of *tridosa*[8]. There is affection of joints by *vata* in association with *ama.* The chief pathogenic factors i.e. *ama* and *vata* being contradictory in character, pose difficulty in planning the line of treatment. *Mandagni*(low digestive power) is a prerequisite factor for the initiation of the *samprapti*(pathogenesis) of amavata as it is the root of every disease[9].

The probable action of the drugs can be understood as-

Rasona Pinda: When seen as combination, most of the constituents are of *katutiktarasa, katuvipaka, ushnaveerya* and *kaphavatashamaka*. They are *deepana, pachana, laghu, sukshma, teekshna*[10] and *rasona*, which is the main ingredient, is an important *rasayana*[11]. So, the drug *rasonapinda* also inherits the properties. Hence due to *rasa veerya* and *vipaka*, it has *deepana* action, which acts upon the major factor in *samprapti,* i.e. *agnimandya.*

As it is *laghu, sukshma*and*teekshna*, it can enter even *sukshmasrtotasa* and helps to remove *ama* out of *srotasa* and clear them for smooth functioning of *vata*. So, *srtotorodhajanitavataprakopa*ispacified.The*vishyandana* action of *lavana* and *chedana* action of *kshara* in the combination adds to this by removal of *ama* that is stuck (*leena*) in *srotasa*.

Most of the drugs of this combination are *kaphavatashamaka*[11]. *Vata* vitiated due to its own *nidana* is pacified. *Kaphashamaka* property is helpful when we think about the *adhishthana* of the disease, i.e. *Shleshmasthana*[12]. It is also helpful in condition where there is dominance of *kapha*.

Thus overall the drug helps in *samprapti*vighatana of the disease and is helpful in the condition.

VaitaranaVasti: As a whole the qualities of drugs in *Vaitarana Vasti* can be considered as *laghu*, *ruksha, ushna, tikshna*[11]. Majority of the drugs are having *vata-kaphashamaka* action. Owing to this property of antagonism to *kapha* and *ama* the *vasti* helps in significant improvement in sign and symptom of disease. The *tikshna-guna* of *vasti* help in overcoming the *srotodushtni* resulting due to *'sanga'*.

The effect of *Vasti* can be summarized as encolonic (action on tissue of colon), endcolonic (action inside colon), and diacolonic (for systemic action). Thus *Vastidravya* after reaching to large and small intestine get absorbed from intestine, now due to *laghu, ushna, tikshna* and *ruksha-guna* of *Vaitarana Vastidravya*, it breaks the obstructions and expels out the morbid material from all over the body, thus help in breaking down the pathogenesis of disease. Here *Anuvasana Vasti*is used so as to avoid the vitiation of *vata* dueto continuous use of *Vaitarana Vasti. Niruha Vasti*-help in elevating the *avarana* of *vata* by *kapha.*

CONCLUSION

The study revealed that*RasonaPinda* and *VaitaranaVasti* together are effective in the management *Amavata*vis-à-vis Rheumatoid Arthritis. The specific *Ayurvedic* line of management and drugs helps in decreasing the autoantigens and may act to modify the immune response to autoantigens. Thus it is a complete regimen as an alternative to the conventional therapy of Rheumatoid Arthritis.

REFERENCES

1. Garde G. K., Marathi TrnslationAshtangaHridaya, Anmol Prakashan, Pune, 2006, Sutrasthana 1/25, Page no. 5.
2. Marita Cross et al, The global burden of rheumatoid arthritis: estimates from the Global Burden of Disease 2010 study. *Ann Rheum Dis* doi:10.1136/annrheumdis-2013-204627 available on ard.bmj.com/content/early/2014/02/18/annrheumdis-2013-204627.long
3. Madhavakara, Madhavanidana,VimalaMadhudharaTeekabyTripathiBrahmanand, ChaukhambhaSurabharatiPrakashana, Varanasi, ed.2010, poorvardha, adhyaya 25, page.571-577.
4. Chakrapanidatta, Chakradatta, Vaidyaprabha Hindi Commentory by Acharya RamanathDwivedi, Chaukhambha Publication, Varanasi, 2002,Amavataadhikara25/52-56, Page no.171.
5. Chakrapanidatta, Chakradatta, Vaidyaprabha Hindi Commentory by Acharya RamanathDwivedi, Chaukhambha Publication, Varanasi, 2002, Niruhaadhikara25/52-56, Page no.455.
6. Agnivesha, Charakasamhita, Charaka Chandrika Hindi commentary by TripathiBrahmanand, ChaukhambhaSurabharatiPrakashan, Varanasi, 2006, Siddhisthana 3/23.
7. Arnett FC, Edworthy SM, Bloch DA, McShane DJ, Fries JF, Cooper NS et al. The

American Rheumatism Association 1987 revised criteria for the classification of rheumatoid arthritis. Arthritis &Rheumatism|Arthritis& Rheumatism-Arthritis Care & Research 1988;31(3):315-324.

8. Murthy KRS. MadhavaNidanam. 4th ed. New Delhi: Chaukhambha Publication; P. 95.
9. Garde G. K., Marathi TrnslationAshtangaHridaya, Anmol Prakashan, Pune, 2006, Nidanasthana 12/1, Page no. 197
10. Bhavamishra, BhavaprakashaNighantu commentary by Chunekar K.C., ChaukhambhaBharati Academy,ed.2010.
11. VriddhaJeevaka, KashyapSamhita, Chaukhambha Sanskrit Sansthana, Varanasi, Ed. 2009, Kalpasthana Lashunakalpa-18, page175.
12. Garde G. K., Marathi TrnslationAshtangaHridaya, Anmol Prakashan, Pune, 2006, Sutrasthana 12/18, Page no. 56.

Table 1: Grading For Assessment

PAIN **0 No pain** **1 Pain present but tolerable** **2 Pain difficult to tolerate and taking analgesic once a day** **3 Intolerable pain and taking analgesics two times a day** **4 Intolerable pain and taking analgesics more than two times in a day.**
TENDERNESS **0 No tenderness** **1 Mild tenderness** **2 Moderate tenderness** **3 Severe tenderness**
GENERAL FUNCTIONAL CAPACITY **0 Complete ability to carry on all routine duties** **1 Frequent normal activity despite slight difficulty in joint movement** **2 Few activities are persisting but patient can take care of him or herself** **3 Few activities are persisting patient requires an attendant to take care of him/herself** **4 Patient is totally bed ridden**
WALKING TIME INDEX **0 =15 - 20 sec** **1 = 21- 30 sec** **2 = 31- 40 sec** **3 = > 40 sec**

Table 2:Effect Of Therapy On Pain

Group	Grading	Pain								Intra group comparison (Friedman's test)
		BT		FOLLOW UP 1		FOLLOW UP 2		FOLLOW UP 3		
		No.	%	No.	%	No.	%	No.	%	
A (n=16)	0	0	0	1	6.2	5	31.2	8	50	χ^2 = 37.992 p = 0.000 (p<0.001 HS)
	1	4	25	8	50	7	43.8	7	43.8	
	2	6	37.5	6	37.5	4	25	1	6.2	
	3	6	37.5	1	6.2	0	0	0	0	
	4	0	0	0	0	0	0	0	0	
B (n=17)	0	0	0	0	0	0	0	3	17.6	χ^2 = 21.130 p = 0.000 (p<0.001 HS)
	1	6	35.3	8	47.1	8	47.1	8	47.1	
	2	7	41.2	6	35.3	6	35.3	6	35.3	
	3	4	23.5	3	17.6	3	17.6	0	0	
	4	0	0	0	0	0	0	0	0	

Pairwise group comparison	**A Vs B**	**z= 0.313 p>0.05**	**z= 1.429 p<0.05**	**z= 2.664 p<0.01**	**z= 2.369 p<0.05**	

Table 3: Effect Of Therapy On Tenderness

Group	Grading	Tenderness								Intragroup comparison (Friedman's test)
		BT		FOLLOW UP 1		FOLLOW UP 2		FOLLOW UP 3		
		No.	%	No.	%	No.	%	No.	%	
A (n=16)	0	1	6.2	2	12.5	3	18.8	9	56.2	$\chi^2 = 37.742$ p = 0.000 (p<0.001 =H.S.)
	1	4	25	3	18.8	10	62.5	7	43.8	
	2	5	31.2	10	62.5	3	18.8	0	0	
	3	6	37.5	1	6.2	0	0	0	0	
B (n=17)	0	2	11.8	2	11.8	2	11.8	2	11.8	$\chi^2 = 19.054$ p = 0.000 (p<0.01 = H.S.)
	1	3	17.6	2	11.8	5	29.4	7	41.2	
	2	8	47.1	9	52.9	10	58.8	8	47.1	
	3	4	23.5	4	23.5	0	0	0	0	
Pairwise group comparison	**A Vs B**	**z = 0.313 p>0.05**		**z = 1.441 p>0.05**		**z = 3.118 p<0.01**		**z = 4.209 p<0.001**		

Table 4:Effect Of Therapy On General Functional Capacity

Group	Grading	General Functional Capacity								In-tragroup compari-son
		BT		FOLLOW UP 1		FOLLOW UP 2		FOLLOW UP 3		
		No.	%	No.	%	No.	%	No.	%	
A (n=16)	0	1	6.2	3	18.8	5	31.2	8	50	$\chi^2 =$ 29.138 (p<0.001 =H.S.)
	1	4	25	7	43.8	9	56.2	6	37.5	
	2	11	68.8	6	37.5	2	12.5	2	12.5	
	3	0	0	0	0	0	0	0	0	
B (n=17)	0	1	5.9	1	5.9	1	5.9	1	5.9	$\chi^2 =$ 1.737 (p>0.05 = N.S.)
	1	5	9.4	5	29.4	4	23.5	4	23.5	
	2	11	64.7	11	64.7	11	64.7	12	70.6	
	3	0	0	0	0	1	5.9	0	0	
Pairwise group compari-son	**A Vs B**	**z = 0.508 (p>0.05=N. S.)**		**z = 2.353 (p>0.05=N. S.)**		**z = 4.000 (p<0.001=H. S.)**		**z = 4.355 (p<0.001=H. S.)**		

Table 5: Effect Of Therapy On Walking Time Index

Group	Grading	Walking Time Index								In-tragroup compari-son (Fried-man's test)
		BT		FOLLOW UP1		FOLLOW UP 2		FOLLOW UP3		
		No.	%	No.	%	No.	%	No.	%	
A	0	1	6.2	1	6.2	3	18.8	6	37.5	$\chi^2 =$ 29.375
	1	4	25	7	43.8	7	43.8	6	37.5	

(n=16)	2	5	31.2	3	18.8	3	18.8	4	25	**p = 0.000 (p<0.001 =H.S.)**
	3	6	37.5	5	31.2	3	18.8	0	0	
B (n=17)	0	0	0	0	0	0	0	0	0	**χ^2 = 4.400 p = 0.221 (p>0.05 = N.S.)**
	1	4	23.5	4	23.5	4	23.5	3	17.6	
	2	9	52.9	11	64.7	11	64.7	9	52.9	
	3	4	23.6	2	11.8	2	11.8	5	29.4	
Pairwise group compari-son	**A Vs C**	**z = 0.465 (p>0.05=N. S.)**		**z = 1.341 (p>0.05=N. S.)**		**z = 2.402 (p<0.05=S .)**		**z = 4.206 (p<0.001=H. S.**		

Table 6: Mean Change In Biochemical Parameters

components	GROUP	BT	AT	BT ~ AT	Intragroup comparison paired t test BT Vs AT	Intergroup comparison A Vs B
RA titre	A	87.95± 78.14	21.65± 15.62	66.30± 76.20	3.89 p<0.01 HS	t=2.39, p<0.01
	B	41.50± 21.35	41.13± 27.63	0.3750±20.89	0.961 p>0.05NS	
CRP titre	A	6.65± 5.67	1.73± 1.29	4.915± 4.84	4.54 p<0.001HS	t=4.00, p<0.001
	B	3.68± 2.39	4.90± 5.62	1.22± 4.9	1.06 p>0.05NS	
Hb	A	11.99± 1.33	12.29± 1.17	0.305± 0.383	3.56 p<0.01HS	t=3.63, p<0.05
	B	10.65± 1.40	10.98± 1.40	0.325± 0.498	1.08 p>0.05NS	
ESR	A	48.55± 10.20	29.40± 7.40	19.15± 10.97	7.80 p<0.001HS	t=5.53, p<0.01
	B	34.00± 9.01	38.75± 11.56	4.75± 8.34	1.61 p>0.151HS	

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