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# A CLINICAL STUDY TO COMPARE EFFECT OF *RASONADI KWATHA* AND *PANCHAKOLA KWATHA* ON *AMAVATA* W.S.R. TO RHEUMATOID ARTHRITIS

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## **ABSTRACT**

Pathology of Amavata is initiated by ingestion of Viruddha or Snigdha ahara and performing Viruddhacheshta or Vyayama in state of pre-existing Agnimandya. It clinically manifests as a joint disease with Sandhishoola, Sandhishotha, Sandhigraha and constitutional symptoms like Angamarda, Aruchi, Jwara, Gaurava etc. On the basis of clinical manifestation it is correlated with Rheumatoid Arthritis in modern science. It is an autoimmune disease affecting persons in 25-55 yrs age group with female preponderance. Its prevalence is about 0.8% worldwide and 0.5-0.75% in India. It may cripple the affected person. In modern medicine the treatment is only palliative and has multiple side effects. On the contrary the Ayurvedic treatment is altogether focused on breakdown of pathogenesis by Agnideepana, Amapachana and Vatashamana. Thus the study was designed to assess the effect of Rasonadi Kwatha and Panchakola Kwatha on Amavata which showed 69.41% and 61.41% relief in sign and symptoms of the disease.

**Keywords:** Amavata, Rheumatoid Arthritis, Rasonadi Kwatha, Panchakola Kwatha.

## **INTRODUCTION**

Now a days, changing life-style is playing an important role in disturbing *Agni* to manifest with several diseases.

Agnimandya leads to formation of Ama which is again root cause for many diseases. It can be produced as a consequence of – Jatharagnimandya, Prathama dosha dushti janya which is referred as Rasadhatvagnimadyajanya and

Malasanchayajanya. Following unhealthy dietary and behavioural habits in pre-existing Agnimandya leads to further vitiation of Ama which can be considered as Rasadhatvagnimandyajanya ama or Sama rasa dhatu which is said to gain Vidagdhata. When it is carried with Samavayu and takes shelter in kaphasthana-Sandhi, it produces Amavata with San-

dhishoola, Sandhishotha, Sandhigraha, Angamarda, Aruchi, Trishna, Jwara, Gaurava. It may further produce complications as Nidraviparyaya, Bahumutrata, Hridgraha according to dosha dushti<sup>1</sup>.

On the basis of clinical manifestations it is correlated with Rheumatoid Arthritis, an autoimmune disease in modern science. It manifests as bilateral arthritis of chronic origin with joint pain, swelling and stiffness. If goes on worsening, it may cripple the affected person. Its prevalence is 0.8% worldwide and 0.5-0.75% in India<sup>2</sup>. It occurs in 25-55 yrs of age, three to four times more common in females<sup>2</sup>.It is believed to occur due to mutations in HLA-DR genes and some environmental factors which breakdown the self-tolerance and initiate autoantibody formation which further destructs normal joint structures. The available treatment is palliative in the form of non steroidal anti-inflammatory drugs, glucocorticoids and disease modifying antirheumatic drugs which either have side effects or needs long term medication<sup>3</sup>. On the contrary, Ayurvedic treatment is focused on breakdown of pathogenesis by reduction of formed Ama by Amapachana, Laghu-Rukshagunadravya, Ruksha-swedana Agnideepana and Vatashamana by Swedana and Basti<sup>4</sup>.

So the study was designed to assess the effect of two drugs described for *Amavata*, namely-*Rasonadi Kwatha* and *Panchakola Kwatha* on sign symptoms of *Amavata* (RA) and its biomarkers- ESR and CRP.

#### AIM:

To compare the effect of *Rasonadi Kwatha* and *Panchakola Kwatha* on *Amavata* w.s.r. to Rheumatoid arthritis.

## **Objectives-**

- 1. To study role of *Rasonadi Kwatha* and *Panchakola Kwatha* on *Amavata*.
- 2. To study etio-pathogenesis of *Amavata*.
- 3. To assess effect of both drugs on ESR, CRP.
- 4. To study side effect of the drugs if any.

## Material and Methods-Material-

Good quality raw materials were obtained and the drugs were prepared as per standard methods of preparation of *Kwatha* and were standardized.

#### Clinical method-

Total 60 patients showing sign –symptoms of *Amavata*, known cases of RA in the age group 25-55 yrs. were selected randomly irrespective of gender, religion, economical status and geographical area and divided randomly into two groups as- Group A (*Rasonadi Kwatha*) and Group B (*Panchakola Kwatha*). Standard dose of *Kwatha* were given in two divided doses of 40 ml before food for 28 days and observation were recorded at interval of 7 days.

Patients with arthritis of other origin, chronicity of disease more than 10 yrs. and known cases of systemic diseases like hypertension and diabetes mellitus and development of side effect which require urgent treatment with other drug or therapy were excluded from the study.

#### Assessment criteria-

## 1. Aruchi

Grade 0- No Aruchi.

Grade 1-Eating timely without much desire.

Grade 2-Desire for food little late than normal time.

Grade 3- Desire for food after a long interval than normal time or no desire at all.

## 2. Angamarda

Grade 0- No Angamarda.

Grade 1- Angamarda but able to do routine work.

Grade 2-Angamarda that hampers routine work.

Grade 3- Unable to work at all.

## 3. Sandhishoola (joint pain)

Grade 0- No pain.

Grade 1- Pain on movements only.

Grade 2- Pain at rest too.

Grade 3- Wakes patient from sleep.

## 4. Sparshasahatva (tenderness)

Grade 0- No tenderness.

Grade 1- Subject experiences tenderness.

Grade 2- Winces on pressure.

Grade 3- Winces on pressure with withdrawal of affected part or not even allow touching.

## 5. Morning stiffness

Grade 0- Up to 5 min.

Grade 1-5min.-2hrs.

Grade 2- 2-8 hrs.

Grade3-8hrs or more.

#### 6. Functional assessment

Table 1: Grades for functional assessment-

Criteria	Grade I	Grade II	Grade III	Grade IV
Grip strength	200 mmHg or more	199-120mmHg	119-70 mmHg	<70mmHg
Foot pressure(in Kg)	25-21	20-16	15-10	<10
Walking time for distance	15-20	21-30	31-40	>40
of 25 feet in number of sec-				
onds				

<sup>7.</sup> Sandhi shotha-proximal Interphalangeal joint- by Gold Smith ring, other joints- by measuring tape.

- **8**. Lab investigations- RA (0 Day).
- **9.** CBC, ESR, CRP (Before and after treatment).

## Observations and result

**Table 2:** Joints involved in group A

	Sandhish	oola			Sparshasahatva				Sandhishotha			
	Rt.		Lt.		Rt.		Lt.		Rt.		Lt.	
	BT	AT	BT	AT	BT	AT	BT	AT	BT	AT	BT	AT
PIP	2.03	0.7	1.86	0.63	1.46	0.43	1.36	0.37	16.09	14.57	15.71	14.28
Wrist	1.467	0.5	1.17	0.33	1.03	0.23	0.77	0.17	19.6	18.9	19.96	19.27
Elbow	0.97	0.34	0.77	0.23	0.53	0.53	0.37	0.07	27.03	26.2	26.13	25.56
Knee	1.93	0.77	1.83	0.63	1.2	1.2	1.27	0.37	35.45	34.22	35.78	34.57
Ankle	0.9	0.34	0.87	0.3	0.4	0.4	0.33	0.03	24.71	23.84	23.82	22.39

**Table 3:** Joints involved in group B-

	Sandhi	shoola			Sparsh	Sparshasahatva So				Sandhishotha			
	Rt.		Lt.		Rt.		Lt.		Rt.		Lt.		
	BT	AT	BT	AT	BT	AT	BT	AT	BT	AT	BT	AT	
PIP	2.06	0.93	2.06	0.93	1.3	0.53	1.34	0.5	14.84	13.84	14.67	13.76	
Wrist	1.5	0.67	1.5	0.6	1.1	0.36	1.1	0.4	18.44	17.98	18.01	17.58	
Elbow	0.7	0.34	0.73	0.33	0.47	0.17	0.47	0.13	23.91	23.48	24.12	23.72	
Knee	1.56	0.77	1.56	0.73	1.1	0.37	1.1	0.4	32.61	32	34.2	33.88	
Ankle	0.7	0.34	0.6	0.27	0.33	0.06	0.34	0.06	24.28	24.33	24.33	23.33	

Table 4: Other criteria's-

	Gre	oup A	Group B			
	BT	CT	BT	CT		
Aruchi	1.333	0.5	1.667	0.467		
Angamarda	1.7	0.9	1.567	0.433		
Morning Stiffness	1.733	0.567	1.8	0.767		
Grip Strength	1.6	0.333	1.567	0.733		
Foot Pressure	1.467	0.3	1.467	0.6		
Walking time	1.5	0.36	1.367	0.567		
ESR	31.067	27.567	32.97	29.97		
CRP	18.2	15.3	18.77	15.9		
Hb	10.55	10.64	10.69	10.16		
WBC	9340	9143	8710	8580		

Table showing mean scores of entities before and after treatment in both groups.

Values show significant effect on all criteria except for haemoglobin and white blood cells at the level of significance 0.05.

#### **DISCUSSION**

Contents of both the drugs- Rasona, Shunthi, Nirgundi in group A and Pippali, Pippalimula, Chavya, Chitraka, Shunthi in group B are primarily of Ushnavirya, Laghu-Ruksha-Ushna guna, Katu-Tikta rasa and thus exhibit Agnideepana and Amapachana and Kapha-Vatashamana properties. With all these characteristics, drugs reduces general symptoms of Ama like Aruchi, Angamarda, Graha; reduces Sandhishotha-Sandhishoola and Sparshasahatva by reducing accumulated Ama and viti-

ated local *Shleshak kapha* and *Vatadosha*. Thus it helped to increase grip strength, foot pressure and reduce walking time and morning stiffness.

Rasonadi Kwatha proved more significant than Panchakola Kwatha on all symptoms except-Aruchi, Angamarda and ESR, CRP which may be due to shothahar effect of Nirgundi in group A.

## **CONCLUSION**

- ➤ Both the drugs proved significant on sign symptoms of the disease.
- Rasonadi Kwatha proved more significant than Panchakola Kwatha on all symptoms except Aruchi and Angamarda and ESR and CRP.

- ➤ Both drug showed few changes in haematological values like-Hb and WBC.
- ➤ The disease shows female preponderance.
- ➤ Change in dietary and behavioural pattern, *Guru Ahara Atisevana* was found to be the main cause for *Agnimandya*. This event can be considered as event responsible for breakdown of self-tolerance to initiate autoantibody formation.

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