A COMPARATIVE STUDY OF CHITRAKADI CHURNA WITH RASNAPANCAKA KVATHA IN THE MANAGEMENT OF AMVATA CHIKITSA SIDDHANTA

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ABSTRACT

Amavata is chronic condition involving loss of mobility and enduring pain of joints with swelling especially synovial joints. *Amvata* is studied extensively in modern science under Rheumatoid arthritis (RA) as Auto-immune disease, but the effective pathology & treatment for RA in modern science is still at large, whereas *Ayurveda* has mentioned it affirmatively. This Article discusses the comparative effect of *Chitrakadichurna* in Group-A & *Rasnapanchak kwath* in group-B having 20 patients in each group, in the treatment of *Aamvata*, mentioned in *chakradatta*. Both the drugs used in the study were found to be immunosuppressant, anti-inflammatory, antioxidant by reducing antigen-antibody reaction. After study, it was observed that group of patients treated with *Rasnapanchakkwath (Group-B)* showed better result than those patients treated with *Chitrakadichurna* (Group-A).

Keywords: *Chitrakadichurna, Rasnapanchakkvath, Aamvata*, Rheumatoid arthritis (RA).

INTRODUCTION

Rheumatoid arthritis (RA) ,autoimmune diseases which affects approximately 1% of the population[1-3], which can lead to significant morbidity and mortality rates, andRheumatoid arthritis can shorten the lifespan by 10 years.[4]Patients with RA typically present with pain, stiffness in multiple joints, swollen peripheral joints, regional osteoporosis, narrowing of the synovial space and fibrous ankylosis. The wrists, proximal interphalangeal joints, and metatarsophalangeal joints are most commonly affected, however, the clinical appearance can be heterogeneous[5,6].Similarly to other autoimmune disorders, RA is a disease of multifactorial etiology. The genetic predisposition is responsible for approximately 60% of the whole disease risk, while environmental factors, such as infections by microbial agents [7], smoking,obesity, or schizophrenia of first-degree relativesand abnormalities of the autoimmune processes also play a role. *Acharya Madhav* first elaborated *Amavata* in his *Madhav Nidana* along with its *nidanpanchaka*. *Chakrapani* in his *grantha Chakradutta* has mentioned the guidelines for the treatment of *Amavata.[8]Amavata* is chronic

condition involving loss of mobility and enduring pain of joints with swelling espisially, synovial joints. It has similarities to many arthritic diseases with special clinical features as with rheumatoid arthritis.This Rheumatic disorder covers the large part of medicine world. It affects all races at very large number of people throughout the world. Hence this is need of today's era to find solution to such disease.It is very burning issue and comes under heading of auto immune disorder. Modern medicine or any other alternative pathies are unable to treat RA from the root cause.*Ahara* should be taken in specific *matra* which is to be decided on the basis of *Agni* of person each time while taking *ahara*.[9]When *matravatAahar* is taken without affecting the state of equilibrium, he gets *Bala*, *Varna*, *Sukha*, i.e. *Arogya* and *Dirghaayushya*. in today's fast track life nobody has time to think of *Matravataahara* leading to *Agnidusti* (*Agnimandya*).[10] as said, the root cause of every disease is *agnimandya*After *agnidushti*, the *ahara* taken by individual gets converted into *ama*. Improper food habits (Fruit Milkshakes, Cocktails, Chinese, Burgers, Pizza etc.) *Ratrijagaran-divaswap*, lack of physical activity all further contributes towards formation of *ama.* Continues *nidansevena*along with *vataprakopa*leads to *Amavata*.We have our basic *chikitsasiddhant*to treat disease on which our science of *ayurveda*stands firmly and remain unchanged though thousands of years gone. *chikitsasiddhant*of *Amavata* explained by *Chakrapani*in very lucid way.*Chitrakadichurṇa*maintioned in *Chakradutta*in *Amavatarogadhikara*.It also has the capability to stop the *ama*formation.Hence I have selected *chitrakadi-*

*churna*as *Agnisandeepan*and *Aampachandravya*in *Amavata*.

AIMS AND OBJECTIVES:

1. To do the literary review of *Aamvat-Vyadhi* according to *Ayurveda* literature along with modern description of Rheumatoid arthritis.

2. To study efficacy of chitrakadichurna in the treatment of *Amvata*

3. To study efficacy of rasnapanchakakvath in the treatment of *Amvata*

4. To compare the effect of *Chitrakadichurna* and *Rasnapancakakvatha*in the treatment of *Amvata* with the help of objective criterias i.e. ESR, R.A test as mentioned in criteria of assessmet of patient.

5. **MATERIAL AND METHODES:** Open randomised comparative study was done. 20 Patients for group A*(Chitrakadichurna*) and 20 Patients for group B (*Rasnapanchakkvatha*) were selected from the O.P.D. of K.G.MITTAL P. *Ayurved*Hospital as per inclusive criteria.

Ethical Clearance: The study was approved by Ethics Committee for human research of pgsection, smtK.G.M.P.Ayurvedic College&Hosptal,Mumbai.patient confidentiality was ensured at all times during the study

Criteria for assessment.

1. Inclusive criteria:

A) Patients having Age group between - 20 to 60 years with irrespective sex.

b) Patients presenting classical features of amvatai,e Pain & Swelling on joints of *Hasta, Pada,Gulfa&Janu, Gaurav, Jwara, Agnimandya*, Heaviness in Pericardial region,*Angamarda,*Lethargy.

2. Exclusive criteria:

a) Patients of age more than 60 yrs and less than 20 yrs will not be taken for study.
b) Patient having Hypothyroidism, Hyperthyroidism
c) Cardio Vascular Disease
d) Psycosomatic Disease

a. Patients having other complications such as permanent joint deformities

Consent: Patient fulfilling criteria for selection were included under study after receiving their written consents

Investigation:
1. ESR
2. RA TEST

Table no.1] Gradations of symptoms: Following grading pattern were adopted for the subjective as well as objective parameters for the assessment of clinical condition of patients before and after treatment

Symptom	Absent	Mild+	Moderate++	Severe+++
Joint Pain	Absent	Sub clinical	Particular Extremity hampered	**Generalized joint ache need analgesic**
Lethargy	Absent	Casual drowsiness of short interval	Retention of intellect but loss of will power with consequent lack of muscular response	**Unable to work & exercise**
Bodyache	Absent	Pain only while doing strenous work	Pain even after normal work	**Pain throughout day**
Loss of appetite	Normal appetite	Quantity of food consumed is insufficient	Seek for food but refuses by some means	**Intense havoc in taste and desire of food**
Heaviness in the pericardial region	Absent	After heavy exercise	Even after daily normal work	**Even during rest**
Constipation	Absent	Passes hard stool	Needs mild purgatives to pass stool	**Need strong purgatives to pass stool**
Joint swelling	Absent	Slight in the morning	Slight constant swelling	**More swelling**
Joint Stiffness	Absent	Sub clinical	Particular joint hampered	**Generalized joint stiffness need analgesic**
Fever	**Absent**	**Only feeling.**	**Temp, above normal but less than 100 degree F.**	**Temp. >100 degree F.**

1. 1. Absent 0 2. Mild 1 (+) 3. Moderate 2 (+ +) 4. Severe

OBSERVATION & RESULT:

Overall effect of therapy: Effects of both the therapies were assessed on the basis of two parameters- A) Improvement in Signsand Symptoms B) Improvement in ESR

Table no.2] Showing Percentage of relief in each symptom and ESR, RA factor:

Symptoms	GROUP A			GROUP B		
	B.T.	**A.T.**	**% Relief**	**B.T.**	**A.T.**	**% Relief**
Joint pain	48	33	31.25	43	19	55.81
Lethargy	42	27	35.71	34	14	58.82

Bodyache	47	34	27.65	41	20	51.21
Loss of appetite	42	15	64.28	36	14	61.11
Heaviness in peri-cardial region	39	30	23.07	31	16	48.38
Constipation	49	16	67.34	41	21	48.78
Joint swelling	49	33	32.65	46	23	50
Joint stiffness	37	29	21.62	39	22	43.58
Fever	25	6	76.00	21	8	61.90
ESR	54.85	45.7	16.68	52.95	43	18.80
RA factor	58.85	52.5	10.79	71.4	59.85	16.17

Table No.3] Application of wilcoxon matched pairs sign rank testfor each symptom of group A:

Symptoms	Mean		S.D.		Wilcoxon test two tailed 'p' value	Significance	Spearmans co-eff. 'r'
	B.T.	A.T.	B.T.	A.T.			
Joint pain	2.400	1.650	0.6806	0.5871	0.0001	Extremely significant	0.7127
Lethargy	2.100	1.350	0.7182	0.7452	0.0001	Extemely significant	0.8562
Bodyache	2.350	1.700	0.5871	0.6569	0.0002	Extremely significant	0.8817
Loss of appe-tite	2.100	0.7500	0.6407	0.5501	<0.0001	Extremely significant	0.9035
heaviness in pericardial region	1.950	1.500	0.5104	0.6070	0.0039	very signifi-cant	0.6413
Constipation	2.300	0.8000	0.4702	0.5231	<0.0001	Extremely significant	0.7633
Joint swelling	2.450	0.7592	0.7592	0.8127	<0.0001	Extremely significant	0.8424
Joint stiffness	1.850	0.5871	0.5871	0.5104	0.0078	very signifi-cant	0.8480
Fever	1.250	0.5501	0.5501	0.4702	<0.0001	Extremely significant	0.7071

Table No.4] Application of Wilcoxon matched pairs sign rank test for each symptom of group-B:

Symptoms	Mean	S.D.	Wilcoxon	Significance	Spearmans

	B.T.	A.T.	B.T.	A.T.	test two tailed p value		co-eff 'r'
Joint pain	2.150	0.9500	0.5871	0.5104	<0.0001	Extremely significant	0.7127
Lethargy	1.700	0.7000	0.5712	0.4702	<0.0001	Extemely significant	0.8562
Bodyache	2.050	1.050	0.6863	0.6048	<0.0001	Extremely significant	0.8817
Loss of appetite	1.800	0.7000	0.6959	0.6569	<0.0001	Extremely significant	0.9035
heaviness in pericardial region	1.550	0.8000	0.5104	0.5231	<0.0001	Extremely significant	0.6413
Constipation	2.050	1.050	0.6863	0.6048	<0.0001	Extremely significant	0.7633
Joint swelling	2.300	1.150	0.6569	0.6708	<0.0001	Extremely significant	0.8424
Joint stiffness	1.950	1.100	0.6863	0.6407	<0.0001	Extremely significant	0.8480
Fever	1.050	0.4000	0.6863	0.5026	0.0002	Extremely significant	0.7071

Table No.5] Difference between RA of both groups:

	GROUP A	GROUP B
Mean	6.350	11.450
S.D.	5.029	17.837
SEM	1.125	3.988
Min.	0.000	0.000
Max.	20	82
Follows normal distribution	No	No
Mann-Whitney U statistic = 170.00 U value – 230.00 Two tailed p value = 0.4225 Considered not significant		

DISCUSSION

Effect of therapy on symptoms: It was observed on the symptoms of*Amavata* i.e. joint pain, lethargy, bodyache, loss of appetite, heaviness in pericardial region, constipation,joint swelling, joint stiffness, fever. To evaluate the effect on symptoms at 14 days follow up; method of scoring the symptoms was adopted. Method was described in materials and methods of earlier chapter.Mean grade score of each symptom in group A and in group B is approximately same at the beginning of the trial.After treatment, in both

the groups significant reduction in all symptoms was noticed but mean grade score of each symptom was less in Group- A as compare to group- B expect loss of appetite, constipation and fever. Average mean grade score of joint pain, lethargy, bodyache, loss of appetite, heaviness in pericardial region, constipation,joint swelling, joint stiffness in group B were reduced much faster than Group- A. In Group-A, joint pain, lethargy, bodyache, loss of appetite, heaviness in pericardial region, constipation, joint swelling, joint stiffness, fever were reduced by 31.25%, 35.71%, 27.65%, 64.28%, 23.07%, 67.34%, 32.65%, 21.62%,76.00% respectively.In Group-B, joint pain, lethargy, bodyache, loss of appetite, heaviness in pericardial region, constipation,joint swelling, joint stiffness were reduced by 55.81%, 58.82%, 51.21%, 61.11%, 48.38%, 48.78%, 50.00%, 43.58% , 61.90% respectively.In Group-A, 15(75.00%) patient got mild relief, 03(15.00%) patients got moderate relief and 02(10.00%)patient got poor relief. In Group-B, 08(40.00%) patients got mild relief and 12 (60.00%) patients got moderate relief.

Role of*Chitrakadichurna*in *Amavata;-*

Properties of*Chitrakadichurna* is as follows:-*Chitrakadichurna* consist of *Katu, Tikkta rasa, Ushanavirya, Katuvipaka-Laghu, Ruksha, Tikshanguna* and *KaphaVataghna*

Action of*Chitrakadichurna*on body constituents is as follows:-Due its *Katu Rasa, KatuVipak,UshanaVirya* and *LaghuGuna* it works as a *Agnideepan*and *pachandravya* which also works as *Agnivardhak* property. Due to *Agnivardhan* it acts as a*Aruchihardravya*. It has *Katu-tikta Rasa* which leads to *Amapachana* which helps in reduc-

ing symptos like *Jwara, Shotha, Shool, Aalasya*.Due to *Amapachanstrotorodh* is reduced leads to first step of *SampraptiVighatan.Chitrakadicurṇa* acts as *Kaphahar, Kledashoshakdravya* due to its properties. It acts as *Vatahar, Shoolha, Shothhardravya* due to its properties.*Chitrakadichurna* as *Pittavardhakdravya* due to its properties which leads *Pachakpittavardhan* and *Amapachan* .it acts on *Sam Rasa Dhatu* to convert it to *Niram Rasa Dhatu* which helps in *Samprapti Vighatan*.it acts mainly on *Annavahasrtotas* and *Rasavahastrotas* in *SampraptiVighatan* of *Amavata.*[11]

Mode of action of *Chitrakadichurna's* Modern view:-*Chitrakadichurna* contains b-sitosterol. It is demonstrated that bsitosterol in vitro activity it inhibits secretion of IL-6, TNF-alfa from activated monocytes both the factors are implicated to pathogenesis of RA also it is known that b-sitosterol helps in reducing joint pain and tenderness thus its analgesic and anti-inflametory activity proves its action in RA. Since RA is autoimmune disease immunosuppressant drugs are used in RA b-sitosterol also acts as a immunosuppressant.chitrakadichurna also contains ascorbic acid which is a potent antioxidising agent which helps to reduce antibody-antigen reaction in RA thus to breakdown disease pathogenesis.

Action of Rasnapanchakakvatha on body constituents is as follows:-

Due to *Tikta, katurasa* , it works as *Agnideepan* and *pachan*. As *Tikta rasa*itself is *Aaruchikar* but it helps as *aruchihar*property caused due to *Aam.Tikta ,katu rasa* and *Ushanavirya* helps in *Amapachan* which further helps in reducing symptoms like-*Jwar, shool, Alasya, shoth*. It reduces *srotorodh*. While doing this *Madhurvipaka* and *Guru gun* keeps *Vata dosh* at its equilibri-

um.*Rasnapanchakakvatha*acts as *Kaphahar*, *Kledashoshak*, *krimighnadravya*due to its properties.Due to *Ushnavirya* ,*madhurvipaka* and *guru guna* it keeps check on *vatadosa* and act as *vatahar, shoolhara and shoothhara*. It regulates *vayu* in *Anulomgati*.It is *pittavardhak* but its intensity as compare to*Chitrakadichurna* is low due to *madhurvipaka* and *guru guna*. It maintains *pitta* by maintaining its *adhogati*.It helps in *Agnideepan* and*pachan.* It act on *saamrasa dhatu* to convert it into *Niramrasa dhatu* andhelps in *sampraptivighatan*.Due to its property it acts as *srotovikasan*i.e its *deepanpachan gun* helps to convert *saamaaharrasa* to *niraam.* Hence it regulates the digestive system and acts on *Rasavaha, Annavahasrotas*. As the result seen on joint stiffness and swelling it shows its action on *Aasthivahasrotos* too. [12]

CONCLUSION

It is observed that symptomatology of Rheumatoid Arthritis is very closely resembles with the disease Amavata.Chitrakadichurṇa used in the present study, proved to be a good work on symptom like constipation, loss of apetite and fever. The group of patients treated with *Rasnapanchakkwath* (Group-B) showed better result than thosepatients treated with *Chitrakadichurna* (Group-A). For more validity and confirmation of results and study should be conducted with large population size

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