Demographic studies of therapeutic efficacy of rasona pinda mahan in amavata Vis a vis rheumatoid arthritis

*Sanjay Gupta ** Shuchi Mitra

* Department of Panchkarma , V.Y.D.S Mahavidhyalaya Khurja U.P,** Department of Rasa Shastra & Bhaisajaya Kalpana Rishikul State Ayurvedic P.G. College, Haridwar, Uttarakhand

Abstract

Context herbal drug "Rasona pinda Mahan" is a compound formulation having chief ingredient Rasona (Allium Sativum) with 24 other ingredients. Following study is based on the reference given by Bhaisajya Ratnavali. It is a well reputed drug since ancient time for the treatment of Amavata(Rheumatoid Arthritis).The drug was given 6-9 gm daily with anupana of warm water or for 45 days.Total 40 cases were selected regardless of their age,sex, socioeconomic consideration but fully satisfying the criteria of diagnosis of Rheumatoid Arthritis in modern medicine & Amvata in Ayurveda.The overall result of clinical trial showed that 60% demonstrated mild to moderate degree of improvement , 17.5 % significant improvement & 22.5% showed no change after clinical trial.

Key Words: Rasona pinda mahan, Amvata, Rheumatoid arthritis.

Introduction

The disease Amvata covers a large population of different countries wordwide.

The disease does not makes its deserting impact on patients only but also causes socioeconomic devastations to the family , society and to the nation.

It is not only limited to joint morbities but has serious extra articular and systemic implications. Though the various studies has been made in the field of Ayurveda during past 4-5 decades to find out a potential remedy for Rheumatoid Arthritis vis a vis Amvata,

Reprint requests: Dr.Snajay Gupta

Lecturer, Department of Panchkarma , V.Y.D.S Mahavidhyalaya Khurja (U.P).

M. No-9411754007.

but not resulted any major break through. Even W.H.O has declayered Rheumatoid Arthritis a big health problem, many NSAIDS, Steroids and cytotoxic drugs like

Reprints requests: Sanjay Gupta
Department of Panchkarma , V.Y.D.S. Mahavidhyalaya, Khurja, U.P.

Methotrexeate have been tried but remained unable to keep their promises for long except giving some symptomatic relieves

Present study has been conducted to find a traditionally renowned herbal prepration which can check the disease process at various levels i.e. Agni and Ama.In the literature of ancient system of medicine there is a suggestion that this drug has been used successfully to cure the disease Amvata. Here considering the necessity of more and more clinical trials the present study using drug "Rasona Pinda Mahan" has been considered.

Objective

To get a more dependable remedy which can be use for long with least probabilities of iatrogenic detrimentation to the patients of Amvata (Rheumatoid Arthritis).

Material and methods:

Total 40 cases were selected randomly from O.P.D. of Rishikul Postgraduate Ayurvedic College and Shantikunj Haridwar.The selection of cases was done randomly regardless of age, sex and socio-economic

status but fully satisfying the criteria of diagnosis of Rheumatoid Arthritis in modern medicine and clinical features of Amvata described in Ayurveda. All the data's were collected maintaining following features.

Demographic profile - Age, Sex, Religion, Occupation etc.

Clinical profile – Chief complain, precipitating factor, biographic details etc.

Laboratory profile – Hb%, T.L.C, D.L.C, E.S.R, R.A factor, C.R.P. etc.

Administration of drug and diet:

The drug was given in powdered form in the dose of 6 gm per day in divided dose with Anupana of warm water or Takra up to 45 days with two follow up.

Patients were advised not to take Guru, Pistanna, rice, Urad ki daal, Curd, Nonvegetarian diet etc.

Selection of the patients

Inclusion criteria

American Rheumatism Association, 1987 revised criteria for Rheumatoid Arthritis was used for the diagnosis of Rheumatoid Arthritis in the patients. Presence of minimum four features for more than six weeks was taken as the criteria for inclusion. Amvata was diagnosed according to the clinical features as described in Madhav Nidana 25/6-10.

Exclusion criteria

The patients having long standing disease with complication and major deformities were excluded.

Patients with Corticosteroids dependendence and with iatrogenic complications were excluded.

Assesment of results

Assesment of result was determined in terms of—-

Degree of remission of symptoms with signs.

Reduction in Inflammatory index.

Changes in Laboratory profile.

Decrease in Walking time, increasing Pressing power and Grip power.

Observation and results

Age, Sex and Occupational status

Out of 40 patients 16 were male and 24 were female, maximum number of patients were reported between 31-40 year of age group i.e 32.5%.(Table no-1).

Majority of patients were housewives (32.5%) and minimum was professionals 2.5%. (Table no.-2)

Dietary habits and Seropositivity:

24% patients were found Omnivorous and 16 % were strict vegetarian.

(Table no.-3)

R.A factor in relation to Dietary habits:

R.A positivity was observed more in the case of nonvegetarians (40%) i.e Nonvege diet have greater chance of developing Ajirna and Ama production.

(Table no.-4)

Deha Prakriti and Satva bala:

Out of 40 patients 47.5% were found of Vata Kapha, 17.5% of Vatapitta, 2.5% of Pittaja Prakriti. 60 % were of Madhyama satva and 15% of Avara satva .

(Table-5).

Clinical presentation of cases

Sandhi Saruja sotha was found in 34 patients, Vriscikadansa vat Vedna in 33 patients, Agnimandya in 22, Aruchi in 12, Trisna in 6, Jwara in7, Bahumutrata in 8, Kukshi Kathinata in 06, Sula in 05, Nidra Viparyaya in 24, Bhrama in 12, Murcha in 0, Hrida Graha in 06, Kostha badhata in 22 and seropositivity in 21 patients. (Table-6).

Duration of illness

Maximum numbers of patients were having disease from 1-4 years (50%), only two

patients were having Rheumatoid Arthritis from 17- 20 years. (Table-7).

Clinical improvement (Statistically evaluated)

Response of trial drug was recorded in the form of gradings of pain, Swelling, Stiffness, Loss of function and deformity which was collectively taken as Inflammatory index.

The mean initial score of pain was 1.94 ± 2.51 which gradually reduced to 0.86 ± 1.89 after completion of trial period, the t value being 2.45 which is significant statistically.

The mean initial score of swelling was 1.27 ± 2.33 which reduced to 0.29 ± 1.29, after completion of trial period, which is highly significant statistically.

The mean initial score for stiffness was 0.78 ± 1.44 which gradually reduced to 0.62 ± 1.10 after trial period, which is highly significant statistically.

The mean score of inflammatory index was 4.88 ± 3.34 which gradually reduced to 2.02 ± 2.29 after completion of trial period which is highly significant statistically.

(Figure-1).

In the same way mean change in the walking time index and grip power index was found significant statistically. (Figure- 2 & 3). Mean change in body weight index was also found significant statistically.

Bio- Chemistry improvements

Total Leucocyte count

Response of treatment on T.L.C. count was highly encouraging and spectacular. The reduction in T.L.C count was observed in all cases.

The mean initial T.L.C was 6828.92 ± 1913.07 per cumm which reduced up to 6432.52 ± 1822.52 after completion of trial period. The mean reduction of 3.96.40 ± 429.90 was observed that valur being 5.85 which is highly significant statistically.

(Table- 8)

Neutrophill count

The mean initial Neutrophil count was 82.79 ± 9.476 per cumm which gradually reduced to 81.72 ± 8.349 after completion of trial period. The t value being 2.5 which is significant statistically.

(Table-9).

Lymphocyte count

The mean initial Lymphocyte count was 26.60 ± 9.22 per cumm which gradually reduced to 23.75 ± 9.12 after completion of trial period. The mean reduction of 2.85 ± 8.78 was observed which is significant statistically. (Table-10).

Eosinophil count

The mean initial Eosinophil count was 6.26 ± 8.172 per cumm which gradually reduced 5.05 ± 8.086 after completion of trial period which is significant statistically.

Haemoglobin Percentage

The mean change in Hb % was found insignificant statistically.

E.S.R count

The mean initial E.S.R was 26.92 ± 22.44 mm / IST hour, which reduced to 23.88 ± 19.29 mm / I ST hour after completion of trial period which is significant stasistically. (Table-11).

Effect of R.A factor on mean change in Inflammatory index and E.S.R:

The patient belonging to Seronegative category showed highly significant reduction in Inflammatory index statistically and reduction in E.S.R statistically.

(Table-12).

Overall Result of clinical trial

Out of 40 patients 60 % showed mild to moderate degree of improvement , only 17.5 % patients showed significant improvement and 22.5 % of total showed no change after completion of clinical trial.(Figure-4).

Conclusion

The trial drug exhibited mild to moderate clinical relief and showed highly significant results in inflammatory index i.e. Pain, Swelling, Stiffness etc.

The trial drug increased the Grip power, reduced the Walking time, T.L.C, D.L.C,E.S.R but no change was observed in Hb % and body weight.

In relation to R.A factor, seronegative patients showed a better response in comparison to seropositive patients both in respect of inflammatory index and E.S.R.

Thus the trial drug showed encouragigng results in disease Amvata / Rheumatoid Arthritis due to their specific action on Ama and Vata.

Table No. 1: Age and sex incidence in 40 patients of Amvata

Sr.no.	Age group (Year)	Male	%	Female	%	Total	%
1	11-20	02	12.5	02	8.3	04	10.0
2	21-30	04	2.5	04	16.6	08	20.0
3	31-40	06	37.5	07	29.2	13	32.5
4	41-50	04	2.5	05	20.8	09	22.5
5	51-60	0	-	04	16.6	04	10.0
6	61-70	0	-	02	8.3	02	5.0
7	Total	16	40	24	60	40	100

Table No. 2: Occupational status in 40 patients of Amvata

Sr.no.	Occupation	No. of cases	%
1	Student	04	10
2	Professional	01	2.5
3	Serviceman	04	10
4	Businessmen	04	10
5	Housewives	13	32.5
6	Farmer	06	15
7	Labours	08	20
8	Total	40	100

Table No. 3: Rheumatoid factor in relation to dietary habits

Sr.no.	R.A factor	Vegetarian	%	Omnivorous	%	Total	%
1	Seropositive	05	12.5	16	40	21	52.5
2	Seronegative	11	27.5	8	20	19	47.5
3	Total	16	40	24	60	40	100

Table No. 4: Incidence of Deha Prakriti

Sr.no.	Prakriti	No. of patients	%
1	Vata	04	10
2	Pitta	01	2.5
3	Kapha	02	5.0
4	Vatapitta	07	17.5
5	Vatakapha	19	47.5
6	Pittakapha	07	17.5
7	Tridosaja	0	0

Table No. 5: Incidence of Satvabala

Sr.no.	Satvabala	No. of patients	%
1	Pravara	10	25
2	Madhyam	24	60
3	Avara	06	15
4	Total	40	100

Table No. 6: Mean initial severity score of symptoms

Sr.no.	Symptoms	Mean	S.D.
1	Sandhi saruja sotha (n - 34)	2.04	± 0.764
2	Vriscikadansa vat vedna (n - 33)	2.02	± 1.283
3	Agni mandya (n - 22)	1.973	± 2.83
4	Aruchi (n - 12)	1.03	± 0.782
5	Trisna (n - 6)	1.62	± 0.752
6	Utsaha hani (n - 21)	1.487	± 0.601
7	Jwara (n - 7)	1.512	± 0.675
8	Gaurava (n - 19)	1.718	± 1.80
9	Praseka (n - 4)	1.611	±0.77
10	Mukha Vairasaya (n - 6)	1.23	± 0.458
11	Daha (n - 5)	1.12	± 0.628
12	Bahumutrata (n - 8)	1.21	± 0.88
13	Kukshi Kathinata (n - 6)	1.67	± 0.78
14	Sula (n - 5)	1.42	± 0.801
15	Nidra viparyaya (n - 24)	1.89	± 0.784
16	Chardi (n - 0)	0	0
17	Bhrama (n - 12)	1.67	± 0.642
18	Murcha (n - 0)	0	0
19	Hrid graha (n - 6)	1.547	± 0.54
20	Kostha baddhata (n - 22)	1.874	± 0.587

N= number of patients

Table 7: Showing chronicity in terms of duration of illness

Sr.no.	Duration of illness	No. of cases	%
1	3-6 months	5	12.5
2	7-12 months	4	10
3	1-4 year	20	50
4	5-8 year	4	10
5	9-12 year	3	7.5
6	13-16 year	2	5.0
7	17-20 year	1	2.5
8	20-30 year	1	2.5
9	Total	40	100

Table 8: Showing mean change in T.L.C

	Satva bala	No. of patients	%
Mean	6828.92	6432.52	396.40
S.D	± 1913.07	± 1822.52	± 429.90
			t = 5.858
			p › 0.001

Table 9: Showing mean change in Neutrophil count

	Before treatment (BT)	After treatment (AT)	Mean difference (BT- AT)
Mean	82.79	81.79	1.07
S.D	± 9.476	± 8.349	± 2.71
			t = 2.5
			p ‹ 0.02

Table 10: Showing mean change in Lymphocyte count

	Before treatment (BT)	After treatment (AT)	Mean difference (BT- AT)
Mean	26.60	23.75	2.85
S.D	± 9.22	± 9.12	± 8.78
			t = 2.05
			p ‹ 0.05

Table 11: Showing mean change in E.S.R (in mm / hour)

	Before treatment (BT)	After treatment (AT)	Mean difference (BT- AT)
Mean	26.92	23.88	3.04
S.D	± 22.44	± 19.29	± 8.164
			t = 2.35

Table 12: Effect of R.A factor on mean change in inflammatory index after treatment

R.A factor	Mean difference (BT- AT)	S.D	t	p
Seronegative (n = 19)	2.08	± 2.55	4.005	‹ 0.01
Seropositive (n = 21)	1.333	± 3.38	2.366	‹ 0.05

Figure No. 1: Mean change in inflammatory index

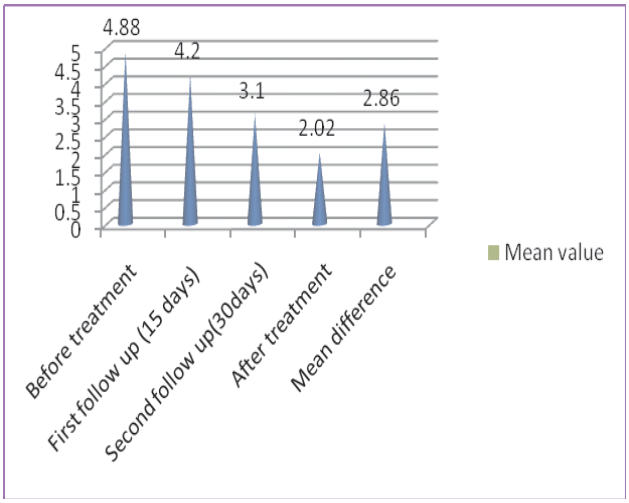


Figure No. 2: Mean change in Walking time index

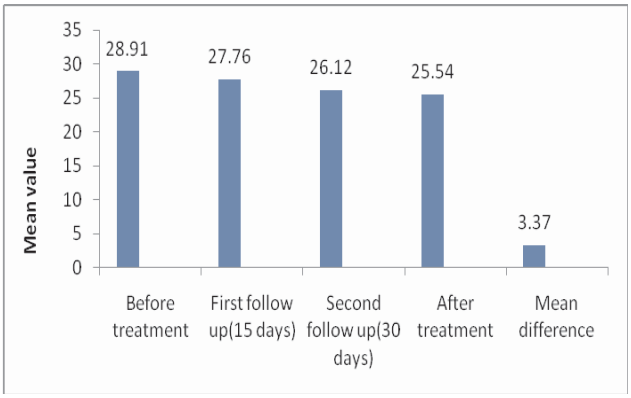


Figure No. 3: Mean change in Grip power index

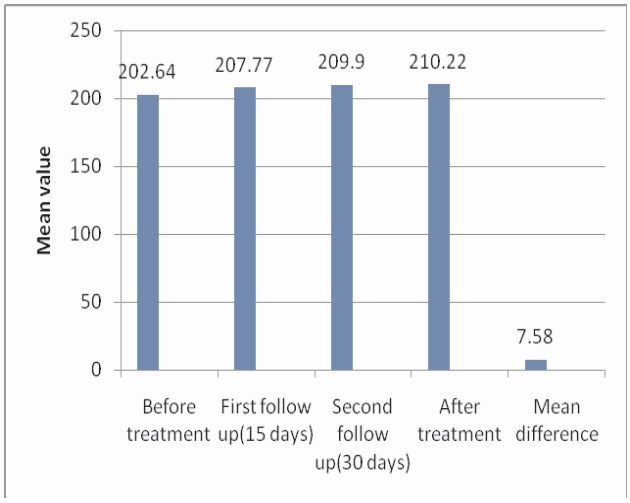
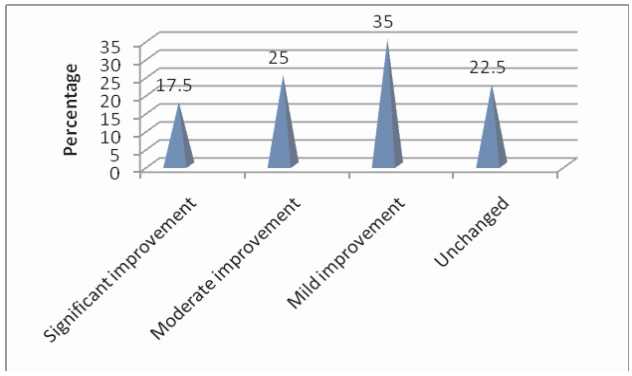


Figure No. 4: Overall result of clinical trial



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