WORLD JOURNAL OF PHARMACEUTICAL RESEARCH
SJIF Impact Factor 8.084
Volume 10, Issue 2, 357-367. Review Article ISSN 2277– 7105

ROLE OF MARMA THERAPY IN THE MANAGEMENT OF AVABAHUKA W.S.R. TO PERI- ARTHRITIS SHOULDER

Mamta[1]*, Suman Sharma[2], Anil Sharma[3] and Sanjeev Sharma[4]

[1]Lecturer K.G Dwivedi Ayurvedic Medical College & Hospital Sarmau, Jhansi (U.P).
[2]Sr. Lecturer Deptt. of Shalya Tantra, R.G.G.P.G. Ayu. College & Hospital, Paprola, H.P.
[3]Reader Deptt. of Shalya Tantra, R.G.G.P.G. Ayu. College & Hospital, Paprola, H.P.
[4]Professor & Director of NIA, Jaipur.

Article Received on
28 Nov. 2020,
Revised on 18 Dec. 2020,
Accepted on 08 Jan. 2021
DOI: 10.20959/wjpr20212-19629

***Corresponding Author**
Dr. Mamta
Lecturer K.G Dwivedi Ayurvedic Medical College & Hospital Sarmau, Jhansi (U.P).

INTRODUCTION

Peri-arthritis shoulder literally means inflammation of the tissue around the shoulder joint. It is characterised by painful or limited range of motions of the joint. It is due to the adhesions of the sub-acromial bursa and later related to tendinitis of the rotator cuff tendon. It has become a challenging medical condition now a days because it affect daily routine activities of human being. There is no satisfied coventional treatment in modern medical science. In ayurveda, this disease can be correlated as *avabahuka* in which *vata* situated in *ansa Pradesh*, constricts the structures around the joint. This results in pain and stiffness of the joint. As varmam text, disease is due to the destruction / decrease in the energy as varmam provides immunity to the body. varmam treatment balances the particular damage varmam point by placing energy. so, this can provide a better modality to treat the disease as it is less time consuming and non-invasive. Patients fit under inclusion criteria have been included in the study in three groups with different set of *marmas.* Sample size has been taken 30 i.e. 10 patients in each group and total 18 sittings have been done in an interval of 5 days. Results has been assessed by subjective and objective parameters before and after treatment.

Peri-arthritis of shoulder joint is a painful and disabling disorder of unclear cause in which shoulder joint becomes inflamed and stiff, greatly restricting motion and causing chronic pain. Pain is usually constant and worse at night.

Statistical analysis shows that the prevalence of the Peri-arthritis disease in general community is around 2 to 5 %. This condition commonly affects the people between the age of 30-60 years. Age greater than 40 is also a significant risk factor, with this category showing a rate of 2.0 per 1000 persons per year compared to 0.6 per 1000 persons per year under 20 years. Occurrence is rare in children. Women are more affected than men and it is common in diabetes.

The normal course of this disease includes **stage one** – freezing or painful stage, which may lasts from 6 weeks to 9 months **stage two** – frozen or adhesive stage is marked by a slow improvement of pain but the stiffness remains **stage three**- thawing or recovery, when shoulder motion returns to the normal stage, this generally lasts from 5 to 26 months. As the shoulder movements are painful, the disease makes the miserable life of housewives, IT professionals, skilled workers, weight lifters and sportsmen.

An evidence based approach to management should include patient's education about the disease and its management, including pain management, options to improve function, decrease disability and prevent or retard progression of the disease. In modern medicine, the current management includes NSAIDs and corticosteroids initially. Corticosteroid injection is commonly used, but has few side effects such as shrinkage of skin, weakening of tendons and have a success rate of 58% only. On surgical decompression the complications like rotator cuff injury and severe scar and tenderness may occur. Recurrence is also there.

According to *Ayurvedic* principles, Peri-arthritis shoulder disease can be taken as *Avabahuka* Treatment of *Avabahuka* incudes modalities such as *snehana,* and *upanaha.*

A large number of patients are attending in our OPDs with Peri-arthritis disease. Majority of the patients are very poor and are unable to meet the expenses for medicines and other investigations in allopathic hospitals. To resolve this problem an alternative approach need to be worked out. *Marma* therapy has been widely used in the management of musculo-skeletal diseases as an effective, safe and cost effective method. Moreover it is simple, non invasive and can be done as an OPD procedure. If it can bypass more expensive and invasive treatment, it will be a boon to the mankind. In this study, the effect of *Marma* therapy in Peri-arthritis of shoulder joint has been evaluated.

AIMS AND OBJECTIVES

Primary Aim

To assess the efficacy of *Marma Therapy* in the management of *Avabahuka w.s.r. to* Peri-arthritis shoulder.

II. Secondary objectives

i. To explore the literature regarding Varma and *Marma* therapy (Marmalogy).
ii. To assess the effectiveness tolerability & acceptability of *Marma* therapy by the patients.
iii. To provide a cheap and safe *Ayurvedic* method of treatment in patients of Peri-arthritis shoulder.

Research protocol

Age group - Between 30 – 60 years

Sex - Either sex

Area of residence - Rural / Urban

Study design - Open, randomized and prospective.

Study centers - Unicentral

Study subjects

Patients attending the OPD/IPD of *AsthiSandhi Rog* unit of *Shalya Tantra* Deptt. R. G. G. P. G. Ayu. College & Hospital Paprola, H.P. 176115 have been screened for Peri-arthritis Shoulder by clinical examination for inclusion.

Sample size–30 patients, 10 patients in each group. Study has been accomplished by dividing patients in 3 groups.

a. Group I - In this group the following mode of management has been followed :-

Kshipra +Talhridya + Manibandha + Indrabasti + Koorpara + Ani+ Urvi + Ansha + Anshphalaka.

b. Group II - In this group the following mode of management has been followed :-

Varma point stimulaton i.e. Kaulikalam + Chavvuvarmam

Piratharai + Kathirkaama + Mudichuvarmam + Kakkattaikalam

c. Group III - In this group the following mode of management has been followed :-

Varma /Marma point stimulaton i.e. Kaulikalam + Chavvuvarmam

Piratharai + Kathirkaama + Mudichuvarmam + Kakkattaikalam.

Kshipra +*Talhridya* + *Manibandha* + *Indrabasti* + *Koorpara* + *Ani* + *Urvi* + *Ansha* + *Anshphalaka*. (Sushrut Sharir 6)

(Dr. N. Shunmugom)

***Marma/Varma*point stimulation**

Gr. I - Each point to be stimulated 15 times with the pulp part of the thumb.

Gr. II - Each point to be stimulated thrice with fingers or thumb or medial border of the hand.

Gr. III - *Marma* points has been stimulated as in Gr. I and *Varma* points has been stimulated as Gr. II.

Inclusion criteria

1. **Age:** Patients of both sexes from 30 yrs. to 60 yrs.
2. **Consent:** Ready to give informed consent.
3. **Chronicity:** Disease should not be of more than six months old.

- Shoulder pain (*vedna*) at least from one month but not more than six months duration.
- Painful (all or some) movements of the shoulder.
- Generalized tenderness over the humeral head and bicipital groove.
- Presence of muscle spasm of Pectoralis major and scapular muscles.

Exclusion criteria

- Grade III of the disease
- Patients having congenital or acquired deformity at shoulder joint.
- Locally deformed or diseased bones.
- Recent H/O trauma/fracture/dislocation /manipulation /immobilization/ surgery of the affected shoulder joint.
- Any type of the specific or non specific arthritis of affected shoulder.
- Post traumatic or post immobilization stiffness of the shoulder.

Subject with drawl criteria

- Voluntary withdrawal by the research subject with or without information.
- Patients showing gross side effects or complications of the procedures.
- Appearance of any ailments during the trial requiring medical or surgical intervention, which is likely to affect/discontinue/interrupt the trial.

- Un-cooperative patient.

After the diagnosis, patients were randomly categorized into three groups:

A. Group I (*Marma point stimulation*)

As mentioned above this group of patients was managed with stimulation of *marma* points.Total 18 sittings of same were given and interval between subsequent visits was of 4 days *i. e.* on the 5thday the procedure was repeated.

B. Group II (*Varma point stimulation*)

Medication permitted during the study period

- Occasional use of NSAIDs in case of pain not controlled by the study procedures.
- Anti-hypertensive drugs & Lipid lowering medicines.
- Antibiotics

Medication not permitted during the study period

- Any skeletal muscle relaxant.
- Neuromuscular blocking drugs.
- Systemic or tropical steroids in any form.

Follow-Up

Every 15days after the termination of trial for 1 month. During follow-up following particular points were noted:

- Status of pain in terms of relief and recurrence.
- Any other relevant subjective or objective finding.

Assessment criteria

In the selected disease condition, pain is the main presenting feature and that too of chronic type. Pain is the subjective feature and it becomes very difficult to measure the degree of pain or relief in pain because of *CLINICAL STUDY* tremendous variations in terms of expression, tolerance or threshold of the pain in individuals. Still a try has been made to measure and assess this feature on the internationally acceptable and self designed parameters. To assess the effect of therapy objectively, all the signs and symptoms along with pain were given scoring depending on their severity as below:

1. Subjective criteria

1. Pain (*Ruja*)

a) No Pain 0

b) No Pain at rest but occurs after physical work 1

c) Pain also present at rest but mild 2

d) Pain also present at rest but moderate 3

e) Pain also present at rest but severe 4

2. Loss of function

a) Can actively do all the routine work 0

b) Can do daily routine work but have to take rest intermittently 1

c) Can do daily routine work but have to take rest very oftenly 2

d) Can't do daily routine work 3

3. Verbal descriptive scale (VDS)

a) No pain 0

b) Mild pain 1

c) Uncomfortable 2

d) Distressing 3

e) Horrible 4

f) Excruciating 5

4. Tenderness

a) No pain on palpation 0

b) Pain occurs on deep palpation 1

c) Pain occurs on light palpation 2

d) Doesn't allow to touch the affected part 3

5. Movements

- Abduction *(Normal range 0 – 170 Degree)*
- Forward Flexion *(Normal range 0 – 165 Degree)*
- Backward Extension *(Normal range 0 – 60 Degree)*
- Internal Rotation in abduction *(Normal range 0 – 70 Degree)*
- External Rotation *(Normal range 0 – 100 Degree)*

a. Full free movements - 0

b. Painful movements after 75% of total range - 1

c. Painful movements after 50% of total range - 2

d. Painful movements after 25% of total range - 3

e. Painful movements below 25% of total range - 4

2. Subjective criterion: (on B.T./A.T. scale)

Group I

Sr. No.	Signs and Symptoms	N	Mean		X (d) BT-AT	%age Relief	SD±	SE±	T	P
			BT	AT						
1.	Pain	10	3.20	2.20	1.0	31.25	0.667	0.211	4.743	0.001
2	Loss of function	10	2.50	1.90	0.60	24	0.699	0.221	2.714	0.024
3.	Tenderness	10	1.40	1.0	0.40	28.57	0.516	0.163	2.449	0.037
4.	Verbal Descriptive Scale (VDS)	10	3.80	2.70	1.10	28.94	0.944	0.314	3.498	0.007
5.	Movement	10	2.100	2.100	0.00	0.00	0.00	0.00	0.00	1.000

1. ***Effect on pain:*** Mean score of pain was 1.00.Finally A.T. mean score was 2.20 i.e. total % relief was 31.25%. This was statistically significant *(p=0.001).*
2. ***Effect on loss of function:*** Mean score of loss of function was0.600. Finally A.T. mean score was 1.900 i.e. total % relief was 24%. This was statistically significant *(p >0.024).*
3. ***Effect on tenderness:*** Mean score of tenderness sensation was 0.400. Finally A.T. mean score was 1.00 i.e. total % relief was 28.57%. This was statistically significant *(p>0.037).*
4. ***Effect on vds:*** Meanscore of VDS was 1.10. Finally A.T. mean score was 2.70 i.e. total % relief was 28.94%. This was statistically significant *(p=0.007)*
5. ***Effect on movement:*** Mean score of movement was 0.00. Finally A.T. was 2.100 i.e. total % relief was 0.00%. This was statistically significant *(p=1.00).*

Group II

Sr. no.	Signs and Symptoms	N	Mean		X (d) BT-AT	%age relief	SD±	SE±	T	P
			BT	AT						
1.	Pain	10	3.40	1.70	1.70	50	0.949	0.300	5.667	<0.001
2	Loss of function	10	2.60	1.50	1.10	42.36	0.876	0.277	3.673	0.002
3.	Tenderness	10	1.60	0.90	0.70	43.75	0.483	0.153	4.583	0.001
4.	Verbal Descriptive Scale (VDS)	10	3.60	2.70	0.90	25	0.3876	0.277	3.250	0.013
5.	Movement	10	2.90	2.00	0.90	31.03	0.568	0.180	5.014	<0.001

1. ***Effect on pain:*** Mean score of pain was 1.70.Finally A.T. mean score was 1.70 i.e. total % relief was 50%. This was statistically significant *(p <0.001).*
2. ***Effect on loss of function:*** Mean score of loss of function was1.100. Finally A.T. mean score was 1.500 i.e. total % relief was 42.36%. This was statistically significant *(p =0.003).*
3. ***Effect on tenderness:*** Mean score of tenderness sensation was 0.700. Finally A.T. mean score was 0.900 i.e. total % relief was 43.75%. This was statistically significant *(p=0.001).*
4. ***Effect on vds:*** Meanscore of VDS was 0.900. Finally A.T. mean score was 2.70 i.e. total % relief was 25%. This was statistically significant *(p =0.010)*
5. ***Effect on movement:*** Mean score of movement was 0.90. Finally A.T. was 2.00 i.e. total % relief was 31.03%. This was statistically significant *(p<0.001).*

Group III

Sr. no.	Signs and Symptoms	N	Mean		X (d) BT-AT	% age relief	SD±	SE±	T	P
			BT	AT						
1.	Pain	10	3.20	0.40	2.80	87.5	0.789	0.249	11.25	<0.001
2	Loss of function	10	2.60	0.40	2.20	84.61	0.422	0.133	16.50	<0.001
3.	Tenderness	10	2.20	0.40	1.80	81.81	0.422	0.133	13.50	<0.001
4.	Verbal Descriptive Scale (VDS)	10	3.90	0.70	3.20	82.05	0.422	0.133	24.00	<0.001
4.	Verbal Descriptive Scale (VDS)	10	3.90	0.70	3.20	82.05	0.422	0.133	24.00	<0.001
5.	Movement	10	3.40	0.50	2.90	85.29	0.876	0.277	10.47	<0.001

1. ***Effect on pain:*** Mean score of pain was 2.80.Finally A.T. mean score was 0.40 i.e. total %relief was 87.5%. This was statistically significant *(p <0.001).*
2. ***Effect on loss of function:*** Mean score of loss of function was2.20. Finally A.T. mean score was 0.40 i.e. total % relief was 84.61%. This was statistically significant *(p <0.001).*
3. ***Effect on tenderness:*** Mean score of tenderness sensation was 1.80. Finally A.T. mean score was 0.40 i.e. total % relief was 81.81%. This was statistically significant *(p<0.001).*
4. ***Effect on Vds:*** Mean score of VDS was 3.20. Finally A.T. mean score was 0.70 i.e. total % relief was 82.05%. This was statistically significant *(p<0.001)*

5. ***Effect on movement:*** Mean score of movement was 2.90. Finally A.T. was0.50 i.e. total % relief was 85.29%. This was statistically significant *(p<0.001).*

CONCLUSION

Sr. No.	Total effect	Gr.- I		Gr.- II		Gr.- III	
		No. of pts.	%age	No. of pts.	% age	No. of pts.	% age
1.	Cured	0	0	0	0	0	0
2.	Markedly improvement	0	0	0	0	10	100
3.	Improved	5	50	9	90	0	0
4.	Unchanged	5	50	1	10	0	0

Group I:- Among 10 patients, 5 (50%) patients had improved. There was no patient who was markedly improved and cured, 5 (50%) patients had remain unchanged.

Group II:- Among 10 patients, 9 (90%) patients had improved and 01 (10%) patient remained unchanged. There was no patient who was cured and markedly improved.

Group III:- Among 10 patients, 10 (100%) patient had markedly improved and there was no patient who was cured, improved or unchanged.

CONCLUSION

Analysis of this case study reveals that frozen shoulder affects everyday life and also quality of life, although it is not a life threatning, but still it hampers quality of life. By this treatment patient got significant results in pain and also restores the movement of arm.

REFERENCES

1. Basic concept of varmology, Dr A. Sahnmukham, I edition Arts research institute Coimbatore, 2014; 134.
2. Sushruta sareera, 6-16.
3. Sushruta nidan, 1-82.
4. A. S. nidan, 15-45.
5. Su. Sha, 6-16.
6. Su. Sha, 6-46.
7. Su. Sha, 6-18.
8. Su. Sha, 6-15
9. Su. Sha, 6-23.
10. Su. Sha, 6-17.

11. Su. Sha, 15-1.
12. Varmam sutram verse, 1063.
13. Charak Chikitsa, 28-1.
14. Su. Sha, 5-30.
15. Su. Sha, 5, 11(31): 15-16.
16. Cha. Chi, 28-9; (15/36), (1/17-18),
17. Sushruta sharira, dalhana, 5-38.
18. Shabdakal padruma.
19. Sushruta sharira, 5-40.
20. Garbh, 2-308.
21. Sushruta sharira, 5-45.
22. Sushruta sharira, 4: 28-29.
23. Cha.Chi, 28-25.
24. Bhava prakasha, 2-318.
25. Garbha prakaran, 189.
26. Sushruta sharira, 5-21.
27. Bhava prakasha, 2, 312-313.
28. Arunadatta; Sarvangasundari commentary on AshtangaHrudayam of Vagbhatacharya, edited by Pt. HariSadasivaSastriParadakara, published by Chaukamba Sanskrit Santhan, Varanasi, 2009.
29. Chaurasia. B. D; Human Anatomy, CBS Publishers, Reprint, 1998; 2.
30. Dr. Gyanendra Pandey; DravyagunaVijnana published by Chaukhamba Sanskrit Series Office, Varanasi, 2002; 1: 2.
31. Prof. Yadunadana Upadhyaya; *Madhava nidana* of Madhavakara with *Madhukosa* commentary by Sriv ijayarakshita and Srikanthadatta with *Vidyotini* hindi commentary and notes, published by Chaukhamba Prakashan, Varanasi; 2007.
32. P.V.Sharma; SusrutaSamita with English translation of text and Dalhana's commentary along with critical notes published by Chaukhamba Viswabharati, Varanasi, 2005.
33. SrikanthaMurthy.K.R; Astanga Hrdayam, Published by Krishnadas Academy, Varanasi, 2000; 2.
34. Dr. David frawley, Dr. subhash Ranade, Dr. Avinash Lele, Ayurveda and Marma therapy, Reprint Edition, published by chowkhambha sanskrita pratishtan Delhi, 2008.

35. Dr. Avinash Lele, Dr. David frawley, Dr. subhash Ranade,Secrets of *Marma* –The lost secrets of Ayurveda, Reprint Edition, published by chowkhambha sanskrita pratishtan Delhi, 2013.
36. Basic concept of varmology, Dr A. Sahnmukham, Arts research institute Coimbatore, 2014; 134.
37. Sushruta sareera, 6-16.
38. Sushruta nidan, 1-82.
39. A. S.nidan, 15-45.
40. Su. Sha, 6-16.
41. Su. Sha, 6-46.
42. Su. Sha, 6-18.
43. Su. Sha, 6-15.
44. Su. Sha, 6-23.
45. Su. Sha, 6-17.
46. Su. Sha, 15-1.
47. Varmam sutram verse, 1063.
48. Charak Chikitsa, 28-1.
49. Su. Sha, 5-30.
50. Su. Sha, 5,11,31 : 15, 16.
51. Cha. Chi, 28-9, 15-36, 1: 17-18.
52. Sushruta sharira dalhana, 5-38.
53. Shabdakalpadruma
54. Sushruta sharira, 5-40.
55. Garbh, 2-308.
56. Sushruta sharira, 5-45.
57. sushruta sharira, 4: 28-29.
58. Cha.Chi, 28-25.
59. Bhava prakasha, 2: 318.
60. Garbha prakaran, 189.
61. Sushruta sharira, 5: 21.
62. Bhava prakasha, 2: 312-313.