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MARMA THERAPY IN AVABAHUKA (FROZEN SHOULDER): A RETROSPECTIVE COHORT

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ABSTRACT

Introduction: Avabahuka a disease of shoulder joint is very much similar to frozen shoulder. Marma therapy is the manipulation of subtle energy (prana) in the body for the purpose of supporting the healing process. In this stimulation of marma points on the body is done which removes blockages from the marma points giving physical and psychological relaxation and strength. **Aims and objectives:** To observe efficacy and safety of marma therapy in patients of Avabahuka in the clinical setting. **Materials and methods:** An observational retrospective cohort design was adopted for the study. Total 21 patients suffering from Avabahuk (secondary frozen shoulder), aged between 30-70years (average 49 years) were selected from the OPD of RARIND Mandi Himachal Pradesh India. The patients who were treated with marma therapy for 3 weeks are considered for the study. Following clinical symptoms of Avabahuk were observed: Ansa Sandhi Shool and Ansa Sandhigrah with assessment criteria Visual analogue scale (VAS) for pain intensity 0-10, range of movements and overall assessment of efficacy of marma therapy was assessed in terms of complete relief (100%), marked improvement (>75%), moderate improvement (>50%), improved (>25%), unchanged (<25%). **Results:** No adverse effect was reported and noticed during the study. At 21st day, all patients experienced improvement in pain and range of movements. Statistically significant improvement was found in all signs and symptoms ($p<0.0001$). **Conclusion:**

Marma therapy may be beneficial in Avabahuka and it is important to validate these findings on larger sample size.

KEYWORDS: Avabahuk, frozen shoulder, marma.

INTRODUCTION

Avabahuka (Frozen Shoulder) is a musculoskeletal disease of shoulder joint which causes significant morbidity. Acharya Sushruta has described avabahuka under vatavyadhi. He has described Ansa shosha (shoshitavama ansa bandanam) as preliminary stage due to vitiation of vata resulting pain and restricted shoulder movements are manifested, in next stage avabhahuka (shiraschaya aakunchaya).[1] Vata gets lodged at the root of the shoulders, subsequently constricting the veins and producing the loss of movement of the arm (sira sankochaya, bahupraspanditahara).[2] In madhukosh teeka of madhava nidhan it is mentioned that ansa shosh is produced by dhatu kshaya (vataj) and avabahuk is vata kapha janya.[3]

Frozen shoulder: The first recorded description of frozen shoulder was reported by Duplay in 1872 in his description of a "periarthritis scapulohumeral", though the term frozen shoulder first used in 1934 by Codman, who described the common features of a slow onset of pain felt near the insertion of the deltoid muscle, inability to sleep on the affected side and restriction in both active and passive elevation and external rotation, yet with a normal radiological appearance.[4] Its peak in between the ages of 40-60 and is slightly more common in women. Frozen shoulder can be primary or secondary (associated with another systemic illness) and the most common association is diabetes mellitus. It progresses through three clinical phases: painful freezing phase (10-36 weeks), adhesive or frozen phase (4-12months), resolution phase (12-42months). Following sign symptoms can be revealed during local examination: inspection- mild disuse atrophy of the deltoid and supraspinatus may be present, palpation- diffuse tenderness over the gleno-humeral joint which extends to trapezius and inter scapular area, movement- in true frozen shoulder there is all most complete loss of external rotation. This is the patho-gnomonic sign of frozen shoulder. True frozen shoulder is a clinical diagnosis and lab tests, x rays are normal. However there are several treatment modalities in modern science like hydro dilation, steroid injection, oral steroids, physiotherapy, manipulation under anesthesia and arthroscopic capsular release but the most efficacious treatments are still largely unclear. Marma therapy has answer to it and more over it is economical, easy acceptability, with all most no side effects if used properly, self practice able after proper learning and non invasive.

Marma therapy: It is an art of treating 107 marma (vital points) and rechannelise the pran (vital force in the body). Touching a marma point changes the body's biochemistry and can unfold radical, alchemical change in one's makeup.[5] Stimulation of these inner pharmacy pathway signals the body to produce exactly what it needs including hormones and neurochemicals that heal the body, mind and consciousness says Dr. Vasant Lad.

Marma point is defined as anatomical site where muscles, veins, ligaments, bones and joints meet together.[1] They are also the sites where not only tridosh (Vata, Pita and Kapha) are present but their subtle forms Prana, Ojusa (soma) and Tejas (agni) are also present with sattva, rajas and tamas.[1] They are not superficial landmarks on the body surface but is deep seated important physio-anatomical structure each having its own width, height, depth and conscious level. Hence this is a specific area on the body, which has relation through Pranic channel to various internal organs, doshas and srotas.

AIM

To evaluate the efficacy of marma therapy in avbahuka (frozen shoulder) clinically.

MATERIALS AND METHODS

An observational retrospective cohort design was adopted for the study. Total 21 patients of either sex, suffering from Avabahuk, aged between 30-70years (average age49years) selected from the outpatient department (OPD) of the Regional Ayurveda Research Institute for Nutritional Disorders (RARIND), Central Council of Research in Ayurveda Science (CCRAS), Mandi Himachal Pradesh India from April 2017 to December 2018. The patients of primary and secondary frozen shoulder (controlled primary disease) who were treated with marma therapy- therapeutic marma therapy weekly and self marma therapy twice a day for 3 weeks are considered for the study. Following clinical symptoms of Avabahuk were observed: Ansa Sandhi Shool and Ansa Sandhigrah (Bahupraspandanhar) with assessment criteria Visual analogue scale (VAS) for pain intensity 0-10(where 0 no pain and 10 worst pain possible), range of movements- forward flexion (elevation normal-180degree), external rotation (normal-60 degree), Abduction (normal-150- 180 degree) and overall assessment of efficacy of marma therapy was assessed in terms of complete relief (100%), marked improvement (>75%), moderate improvement (>50%), improved (>25%), unchanged (<25%).

Study intervention

Marma therapy was applied on marma points Ansa, Kakshadhar, Aani and Kshipra 12times one fourth matrai pressures on each point, which is one cycle on 1st day (base line), similarly repeated by the patients (self marma therapy) for next 6days for 3cycles in one sitting twice daily. On 1st follow up therapeutic marma therapy which was followed by self marma therapy twice daily, similarly repeated on 2nd follow up for total period of three weeks, with this their actual treatment of primary disease were also continued.

Data Analysis

The information gathered based on the above observation was subjected to statistical analysis using Graph Pad Prism Software, version7.04. As the criteria selected for analysis were non-parametric hence 'Wilcoxon matched- pairs signed ranked test' was applied.

RESULTS

No adverse effect was noticed and reported during the study.

Table 1: Showing %age improvement in pain.

Patient wise total score and percentage improvement in pain				
Pt. No.	**BT**	**DT**	**AT**	**% improvement (BT-AT)**
1	5	4	2	60
2	5	4	3	40
3	5	4	3	40
4	5	4	3	40
5	5	4	2	60
6	6	4	2	66.7
7	5	4	2	60
8	5	4	2	60
9	5	4	2	60
10	4	2	3	25
11	5	4	2	60
12	5	4	2	60
13	5	4	2	60
14	5	4	2	60
15	5	4	2	60
16	5	3	2	60
17	5	4	2	60
18	5	4	2	60
19	5	4	2	60
20	5	4	3	40
21	5	3	2	60

Table showing improvement in pain: 66.7% (in 1 patient), 60% (15 patients), 40% (4 patients) and 25% (1 patient).

Table 2: Showing improvement in pain.

S. No.	Duration	Median (n=21)			% relief	rs (Spearman)	"p" value	Result
		BT	AT	Diff.				
1	BT-DT	5	4	1	20	0.4817	<0.0001	V. S.
2	BT-AT	5	2	3	60	0.3815	<0.001	V. S.

Table showing very significant results in pain with p value <0.0001.

Table 3: Showing improvement in forward flexion and external rotation.

S. No.	Forward Flexion			%Improvement (difference)	External Rotation			%Improvement (difference)
	BT	DT	AT		BT	DT	AT	
1	5	50	70	65	5	30	70	65
2	25	60	80	55	10	30	60	50
3	20	60	80	60	5	30	60	55
4	20	50	70	50	5	20	70	65
5	20	40	60	40	10	40	80	70
6	20	50	70	50	5	50	80	75
7	20	40	60	40	5	40	70	65
8	15	30	60	45	5	50	70	65
9	20	50	70	50	10	50	80	70
10	20	40	70	50	5	40	60	55
11	20	50	80	60	5	50	80	75
12	20	30	60	40	5	40	70	65
13	20	40	70	50	5	50	80	75
14	20	50	80	60	5	60	80	75
15	20	50	70	50	5	40	70	65
16	20	50	80	60	5	50	80	75
17	20	60	90	70	5	40	80	75
18	20	50	70	50	5	30	60	55
19	25	60	80	55	5	40	80	75
20	20	50	80	60	5	50	70	65
21	25	60	90	65	10	60	80	70

Table showing improvement in flexion (40%-70%) and external rotation (55%-75%).

Flexion

S. No.	Duration	Median (n=21)			% relief	rs (Spearman)	"p" value	Result
		BT	AT	Diff.				
1	BT-DT	20	50	30	30	0.5765	<0.0001	V. S.
2	BT-AT	20	70	50	50	0.5217	<0.0001	V. S.

Table showing very significant results in flexion with p value <0.0001.

External Rotation

S. No.	Duration	Median (n=21)			% relief	rs (Spearman)	"p" value	Result
		BT	AT	Diff.				
1	BT-DT	5	40	35	35	0.1044	<0.0001	V. S.
2	BT-AT	5	70	65	65	-0.2337	<0.0001	V. S.

Table showing very significant results in external rotation with p value <0.0001.

Table 4: Showing abduction and overall assessment.

S. No.	Abduction			%Improvement (difference)	Overall relief			%Improvement (difference)
	BT	DT	AT		BT	DT	AT	
1	25	60	80	55	20	60	90	70
2	30	70	90	60	20	5	60	40
3	30	70	90	60	20	30	60	40
4	25	60	90	65	20	20	60	40
5	30	50	70	40	30	70	99	69
6	30	60	80	50	20	40	70	50
7	25	70	80	55	30	30	60	30
8	30	50	70	40	20	40	60	40
9	30	60	80	50	30	50	90	60
10	25	70	90	65	20	40	70	50
11	30	60	90	60	30	60	90	60
12	30	70	90	60	20	50	70	50
13	25	70	90	65	30	50	80	50
14	30	50	80	50	20	60	90	70
15	30	50	70	40	20	50	90	70
16	25	60	80	55	30	50	70	40
17	30	60	80	50	30	60	90	60
18	25	60	80	55	30	30	60	30
19	30	70	90	60	30	70	90	60
20	25	60	80	55	20	40	70	50
21	30	60	80	50	30	70	90	60

Table showing 65%-40% improvement in abduction and overall 30%-70% improvement.

Abduction

S. No.	Duration	Median (n=21)			% relief	rs (Spearman)	"p" value	Result
		BT	AT	Diff.				
1	BT-DT	30	60	35	35	0.1503	<0.0001	V. S.
2	BT-AT	30	80	55	55	-0.124	<0.0001	V. S.

Table showing very significant results in abduction with p value <0.0001.

Overall assessment

S. No.	Duration	Median (n=21)			% relief	rs (Spearman)	"p" value	Result
		BT	AT	Diff.				
1	BT-DT	20	50	20	20	0.4319	<0.0001	V. S.
2	BT-AT	20	70	50	50	0.3549	<0.0001	V. S.

Table showing very significant results in overall improvement with p value <0.0001.

DISCUSSION

Coincidently all of the patients were females with average age group of 49 years, 60% with right frozen shoulder, primary diseases Diabetes, Hypertension and Cervical Spondylosis. Good improvement was seen in both the parameters pain and shoulder movement restriction with overall improvement of average 45% in three weeks. Comparing baseline to end of the treatment 40%-60% improvement in pain (except one patient-25%), 40-75% improvement in range of movement and moderate improvement overall. This can be improved with prolonging the duration of therapeutic marma therapy initially followed by self marma therapy. More improvement was noticed in subsequent follow up of the patients.

CONCLUSION

The results were quite encouraging without any side effects and moreover it is noninvasive and cost effective. This can be further evaluated on large number of patients to validate its effectiveness.

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