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Effect of Masha Saindhava Taila in the Management of Apabahuka W.S.R To Frozen Shoulder

Research Article

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Abstract

Frozen shoulder is a painful and disabling condition that often causes great frustration for patients and care givers due to slow recovery. *Apabahuka* is a *vatavyadhi* affects the *amsa sandhi* .Patients present with *amsa sandhi shoola , amsa sandhi sthabdata* and *bahupraspanditahara,* which can be paralleled with the condition Frozen shoulder in the contemporary science which affects the shoulder joint causing restricted range of movements.

Apabahuka being a *bahushirshagata roga*, *nasya karma* should be the first and foremost treatment of choice. Hence the present clinical study was carried out to assess the effect of *masha saindhava taila nasya karma* in the management of *Apabahuka* w s r to Frozen shoulder.

In this study 30 patients with confirmed diagnosis of *Apabahuka* were subjected to *nasya karma* for 7 days by *masha saindhava taila* and assessment was done for both subjective and objective signs. From the statistical analysis, it was evident that 23(77%) patients got moderate improvement, 5(17%) patients got mild improvement, 2(6%) patients did not get relief. From the present study it can be concluded that, the condition *Apabahuka* can be managed with *masha saindhava taila nasya*.

Keywords: *Apabahuka, Masha saindhava taila, Vatavyadhi, Nasya karma*, Frozen shoulder.

Introduction

A number of peri-articular disorders have become increasingly common over 2 or 3decades, due in part to greater participation in the recreational sports by individuals by wide range of ages(1). *Apabahuka* is a disease caused by *kupita vata dosha* localising around the *amsa pradesha* causing *shoshana* of *amsa sandhi*, there by leading to *akunchana* of *sira* and presents with *bahupraspanditahara*(2).This can be paralleled with Frozen shoulder (adhesive capsulitis) in the contemporary science, which is a common painful condition of the shoulder with restricted / loss of range of movements. It results from contraction of the glenohumeral joint capsule and adherence to the humeral head. The incidence of adhesive capsulitis is approximately 3% in the general population. It peaks between 40 and 70 years of age. Women are more often affected than men and the estimated prevelance in Diabetics is 11%-30% and 2%-10% in non diabetics (3). *Apabahuka* being a *bahushirshagata roga nasya karma* should be the treatment of choice (4). *Masha saindhava taila*, which is told in *Bhaishajya ratnavali* (5) and

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chakradatta (6) contains *masha, saindhava lavana* and *tila taila*. *Masha* having *guru* and *snigdha* properties helps in *vatashamana*; *tila taila* (7)and *saindhava lavana* being *vatakapha shamaka* (8), used in the form of *sneha nasya*. *Apabahuka*, which is caused due to vitiation of *vata* presents with *shoola* and *bahupraspanditahara*. Both these symptoms occurs due to depletion of *shleshaka kapha* in the *amsa sandhi* and thereby affects the *vyana vata* which is responsible for the movement of the shoulder joint may help in the *samprapti vighatana*.

Aims and objectives

To evaluate the effect of *Masha saindhava taila nasya* in the management of *Apabahuka* w s r to Frozen shoulder.

Materials And Methods

Materials taken for the study was *Masha saindhava taila* .*Taila* was prepared in JSS Ayurveda Pharmacy, Mysore.

Method

Sampling

30 patients with confirmed diagnosis of *Apabahuka* were selected from OPD & IPD of JSSAMC & Hospital, Mysore.

Inclusion criteria

- Patients presenting with *pratyatma lakshana* of *Apabahuka* / Frozen shoulder - *amsa sandhi shoola, amsa sandhi sthabdata* and *bahupraspanditahara* / pain, stiffness and restricted range of movements of the shoulder.
- Patients of Frozen shoulder with or without the history of Diabetes mellitus.
- Patients between the age group of 16-60 years.
- Patient fit for *Nasya karma*.

Exclusion criteria

Patients with shoulder ailments of varied pathology other than Frozen shoulder

- Patient with other systemic disorder which interfere with the treatment.
- Pregnant and lactating mother.

Investigation

X- Ray shoulder (if necessary, to exclude the other conditions of shoulder)

Diagnostic criteria

- Patients presenting with *shoola* and *sthabdata* in *amsa pradesha*
- Restricted range of movements of *amsa sandhi.*

Research design

Single blind clinical study.

Intervention

All 30 patients were taken for *nasya karma* by *Masha saindhava taila.*

The procedure of *nasya karma* was followed in 3 steps.

Patients were advised to be on empty stomach.

Purvakarma: sthanika abhyanga and *sweda* to face with *Masha saindhava taila.*

Pradhanakarma: pouring of 8drops of *Masha saindhava taila* into each nostril.

Pashchatkarma:

- *Haridra dhoomapana* – 3 puffs into each nostril one after the other and exhaled through mouth.
- *Pathya – apathya* was advised

This procedure was carried out for 7days and assessment was done after the treatment and on 14^{th}, 22^{nd} and 30^{th} day of follow ups.

Assessment criteria

The cardinal clinical manifestations, both symptoms and objective signs were scored according to the severity and considered as the assessment criteria for the study.

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Table 1: Showing subjective parameter

Subjective parameter	Observations	Scale
Shoola (pain)	No pain	0
	Mild pain, particularly on moving the shoulder but able to continue the routine work without difficulty.	1
	Moderate pain, felt on movement and also at rest interfere routine work.	2
	Severe pain, felt on movement and also at rest , unable to carry most of the routine work	3
Sthabdata (stiffness)	No stiffness	0
	Mild stiffness, particularly during shoulder movement able to continue routine work with difficulty.	1
	Moderate stiffness, unable to continue work with difficulty.	2
	Severe stiffness, felt on movement and also at rest interfering routine work.	3

Table 2: showing objective parameter

Objective parameter using Goniometer	Observation (in degrees)	Scale
Flexion	161-180	0
	141-160	1
	121-140	2
	<120	3
Extension	51- 60	0
	41-50	1
	31-40	2
	<30	3
Abduction	161-180	0
	141-160	1
	121-140	2
	<120	3
Internal rotation	71-90	0
	51-70	1
	31-50	2
	<30	3
External rotation	71-90	0
	51-70	1
	31-50	2
	<30	3

To assess the overall effect of *masha saindhava taila nasya*, following criteria were taken.

Major improvement:

75% to complete subsidence of *shoola, sthabdata* of *amsa sandhi* and improvement in the range of movements of shoulder.

Moderate improvement:

50%-74% subsidence of *shoola, sthabdata* of *amsa sandhi* and improvement in the range of movements of shoulder.

Mild improvement:

25%-49% subsidence of *shoola, sthabdata* of *amsa sandhi and* improvement in the range of movements of shoulder.

No improvement:

Persistence of *shoola, sthabdata* of *amsa sandhi and* no improvement in the range of movements of shoulder.

Data regarding above said parameters were collected before treatment, after treatment, 14th day, 22nd day and 30th day of follow ups. These data were subjected statistical analysis by applying student paired t'test. P value was calculated by referring the Fischer's table at the corresponding degree of freedom and based on these results were interrupted.

Observations and Results

It was observed that out of 30 patients 19(63%) were female and 11(37%) were men. The maximum number 18(60%)of patients were in the age group of 51 to 60 years of age, 8(27%) patients in 41-50years and 4(13%) were in 31 to 40 years of age. The maximum number 18 (60%) were *sasyahari* and 12(40%) were *mishra ahari*. Majority of the patients belonged to 1 to 3 months of chronicity i.e, 14(50%), 7(25%) patients had 4-6months and 7(25%) had > 6months of chronicty. 25(75%) patients were non diabetic and 5(25%) had a history of diabetes mellitus. 27(90%) patients had disturbed sleep and the rest 3(10%) had good sleep.

Table 3: Showing statistical analysis of before and after treatment

Sl no	Features	BT Mean +/- SD	AT Mean +/-SD	Mean difference	Std error of diff	t value	P value
01	Pain	2.13 +/-0.51	1.30 +/-0.83	0.83	0.08	9.89	<0.001
02	Stiffness	2.43 +/-0.53	1.67 +/-0.61	0.76	0.07	9.76	<0.001
03	Flexion	2.77 +/-0.43	1.83 +/-0.70	0.94	0.08	11.36	<0.001
04	Extension	2.87 +/-0.35	2.17 +/-0.70	0.70	0.09	7.16	<0.001
05	Internal rotation	2.93 +/-0.25	2.27 +/-0.58	0.66	0.08	7.61	<0.001
06	External rotation	2.53 +/-0.51	1.59 +/-0.83	0.94	0.06	13.50	<0.001
07	Abduction	2.73 +/-0.45	1.67 +/-0.61	1.06	0.09	11.21	<0.001

Table no 4: Showing statistical analysis of before treatment and 1st follow up

Sl no	Features	BT Mean +/- SD	1st FUP Mean +/-SD	Mean difference	Std error of diff	t value	P value
01	Pain	2.13 +/-0.51	1.17 +/-0.70	0.96	0.07	12.79	<0.001
02	Stiffness	2.43 +/-0.53	1.37 +/-0.61	1.06	0.12	8.44	<0.001
03	Flexion	2.77 +/-0.43	1.17 +/-0.83	1.60	0.11	14.10	<0.001
04	Extension	2.87 +/-0.35	2.13 +/-0.73	0.74	0.10	6.88	<0.001
05	Internal rotation	2.93 +/-0.25	2.27 +/-0.58	0.66	0.08	7.61	<0.001

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06	External rotation	2.53 +/-0.51	0.77 +/-0.73	1.76	0.10	17.02	<0.001
07	Abduction	2.73 +/-0.45	0.97 +/-0.72	1.77	0.09	19.19	<0.001

Table 5: Showing statistical analysis of before treatment and on 2nd follow up

Sl no	Features	BT Mean +/- SD	2nd FUP Mean +/-SD	Mean difference	Std error of diff	t value	P value
01	Pain	2.13 +/-0.51	1.10 +/-0.72	1.03	1..10	10.17	<0.001
02	Stiffness	2.43 +/-0.53	1.37 +/-0.61	1.07	0.12	8.44	<0.001
03	Flexion	2.77 +/-0.43	1.13 +/-0.82	1.63	0.12	13.36	<0.001
04	Extension	2.87 +/-0.35	2.00 +/-0.70	0.87	0.10	8.30	<0.001
05	Internal rotation	2.93 +/-0.25	2.27 +/-0.58	0.67	0.08	7.61	<0.001
06	External rotation	2.53 +/-0.51	0.73 +/-0.78	1.80	0.11	16.15	<0.001
07	Abduction	2.73 +/-0.45	0.97 +/-0.72	1.77	0.09	19.19	<0.001

Table no 6: Showing statistical analysis of before treatment and 3rd follow up

Sl no	Features	BT Mean +/- SD	3rd FUP Mean +/-SD	Mean difference	Std error of diff	t value	P value
01	Pain	2.13 +/-0.51	1.10 +/-0.71	1.03	0.10	10.17	<0.001
02	Stiffness	2.43 +/-0.53	1.37 +/-0.61	1.07	0.12	8.44	<0.001
03	Flexion	2.77 +/-0.43	1.13 +/-0.82	1.63	0.12	13.3	<0.001
04	Extension	2.87 +/-0.35	2.00 +/-0.70	0.87	0.10	8.30	<0.001
05	Internal rotation	2.93 +/-0.25	2.13 +/-0.57	0.80	0.08	9.04	<0.001

06	External Rotation	2.53 +/-0.51	0.73 +/-0.78	1.80	0.11	16.15	<0.001
07	Abduction	2.73 +/-0.45	0.97 +/-0.72	1.77	0.09	19.19	<0.001

Table 7: Showing the overall assessment of Treatment

Sl no	Overall assessment	No of patients	%
01	Major improvement	00	0%
02	Moderate improvement	23	77%
03	Minor improvement	05	17%
04	No improvement	02	6%

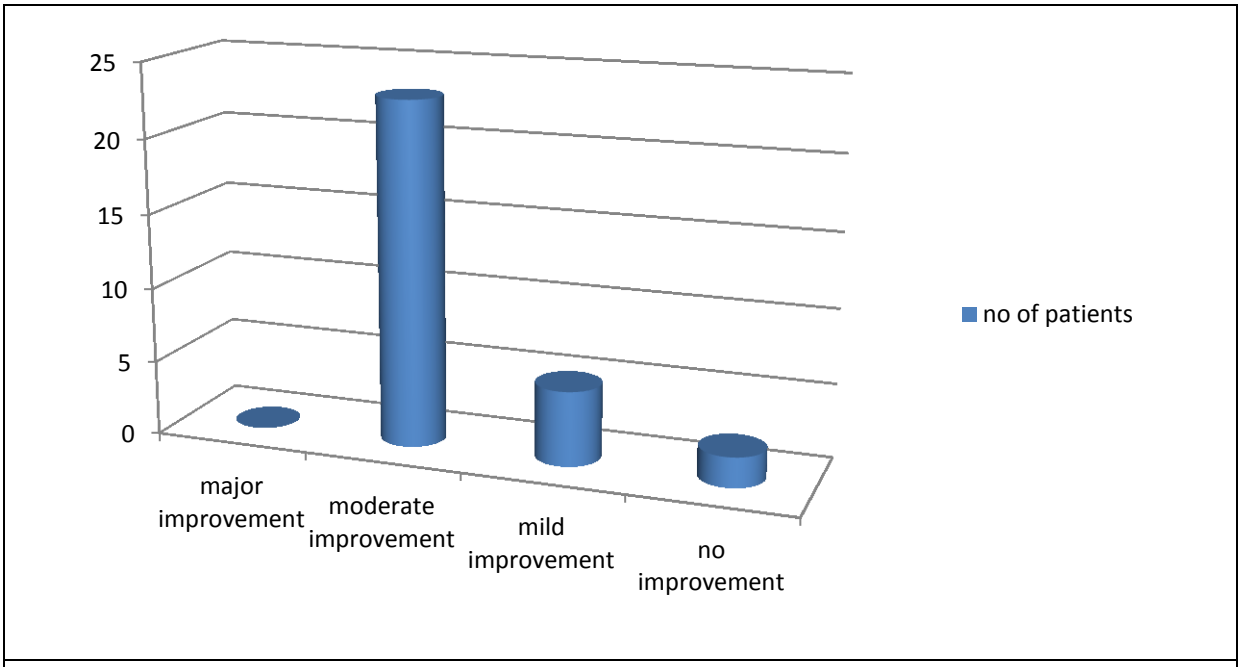

Figure: 1 Showing the overall assessment of the Treatment

Discussion

Nasya

Absorption takes place in 3 ways: vascular, neural and lymphatic pathways. On the other hand, the head low position may help in draining of blood from facial vein to cavernous sinus. *Sthanika abhyanga* and *sweda* may enhance the drug absorption by increasing the blood circulation. As the efferent vasodilator nerves are spread to the superficial surface of the face,receive the stimulation by fomentation and it may increase the blood flow to the brain.

Discussion on formulation

Masha saindhava taila, used for the study has *vatahara, kaphahara* and *brumhana* properties. The *taila* here is best *vatahara. Masha* is *brumhana,* which is essential *upakrama* in the treatment of *vatavyadhi. Saindhava lavana* is both *vatahara* and *kaphahara*. So, may have action either on *kaphavruta vata* or *vata* directly in the *samprapti* of *Apabahuka*.

Discussion on procedure

Nasya is considered to be best therapy for *urdhwajatrugata* and *bahu shirshagata vata vikara*. So, this *taila* used in the form of *nasya* has given moderate improvements in the patients. This could have given major improvement, if this course of *nasya* therapy repeated for two or three times with short gap or can even be given as *pratimarsha nasya* for some months, after the treatment.

Discussion on Results

Shoola: The improvement in the *shoola* after treatment and during 1st follow up was highly significant with P value <0.001 and this improvement were maintained during further follow ups. ***Sthabdata***: Improvement in *sthabdata* after treatment was highly significant with P value<0.001. Whereas this feature increased by one grade after the treatment and during all the follow ups. *Shoola* and *sthabdata* was moderately improved after the treatment and till the first follow up. Further improvement in these two features was not observed till the last follow up. **Internal rotation:** This movement was majorly affected in 53% of patients with grade 3 and on follow ups it was gradually reached to grade one. In another 47% of patients no improvement was observed. **External rotation**: 50% patients with grade 3 had increased in range of motion i.e. to grade 2 on 1st follow up, 46% patients of grade 2 to grade1 observed on last follow up. **Flexion**: 53% with grade 3 showed improvements in two levels i.e. mild on last follow up, 20% showed good improvement with grade 0 from grade1, no improvements seen in 10% of patients. **Extension**: 56% from grade 3 to grade 1 on 3rd follow up, 13% from grade2tograde1, 3% from grade 2 to grade 0 and 23% did not show any improvement. **Abduction**: 53% from grade 3 to grade 1 on last follow up and grade 1, 20% grade 2 to grade 1, 20% from grade 2 to grade 0 on last follow up. Among the objective features i.e., five ROM, moderate improvements was observed in flexion, abduction and external rotation and not much improvements was observed in the movement extension and internal rotation. The improvement observed after the treatment was persistent with no deterioration. The cause for no improvement in the extension and internal rotation cannot be elicited. Overall assessment: 2(6%) of patients have not benefited from the treatment, may be because of chronicity of the illness more than 1 year.

Conclusion

Prevelance of *apabahuka* is more in age group of above 40 years. *Apabahuha* can be effectively paralleled with 'Frozen shoulder.' Involvement of *vyana vata* is invariable in the *samprapti* of *Apabahuka* irrespective whether it is due to *dhatukshayajanya* or *margavaranajanya,* because functions of *vyana vata* i.e. *pasarana*, *akunchana* are affected in both the conditions. *Vatahara* and *brumhana* properties of *Masha, tila taila* and *saindhava lavana* are helpful in *samprapti vighatana* in *Apabahuka*. So, this formulation is helpful in relieving the symptoms like *shoola, sthabdata* and *bahuprspandana*, through *nasya karma.* As *nasya* is one among the *panchakarma* specially indicated in *urdwajatrugata* and *bahushirshagata vata*, has shown very effective result in *Apabahuka. Masha saindhava taila* is especially helpful in improving in ROM i.e. flexion, external rotation and abduction.

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