

A Controlled Clinical Study to Evaluate the Efficacy of Shulahara Gritha Nasya in the Management of Apabahuka Vis-A-Vis Frozen Shoulder

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Abstract: *Apabahuka is one among the shoopalpradhanavatyadhi and also mentioned as one among 80 varieties of vatajananatmajavyadhi. It is characterised byshula, bahupraspandanahara and amsashosha. The signs and symptoms of Apabahuka resemble that of frozen shoulder as described in Western system of medicine. Frozen Shoulder is characterised by pain and restricted movement of the shoulder usually in the absence of intrinsic shoulder disease. Self reported prevalence of shoulder pain is estimated to be between 16-26%. 2%-5% of consecutive new subject attend clinic for the complaint of glenohumeral disorders like frozen shoulder .This disorder is one of the most common musculoskeletal problems seen in orthopedics. Frozen shoulder is commonly associated with the other systemic and non systemic conditions. Most common is the Diabetes mellitus with an incidence of 10-36%. Frozen Shoulder is more common in fifth and sixth decades of life and women with cardiovascular diseases are predisposed.*

Keywords: Apabahuka; Frozen shoulder, Nasya

1. Introduction

Apabahuka is one among the vedanapradhanavatyadhi, it is characterised by Bahupraspandanahara, Shula and Amsashosha. In Apabahuka vitiated vatadoshaget localised in amsapradesha causes contraction of siras leads to the shoshana of shleshakakapha and stricts the movement of the shoulder joint leading to Apabahuka¹. The signs and symptoms of Apabahuka resemble that of frozen shoulder as described in Western system of medicine. Self reported prevalence of shoulder pain is estimated to be between 16-26%. Most common is the Diabetes mellitus with an incidence of 10-36%.²

There are lot of treatment strategies described for its management. Most of the methods are palliative and there is a high rate of re-occurrence of the problem. Ayurveda mentions a reliable therapy for Apabahuka. Some studies have already been conducted in this regard. Ashtangasangraha has mentioned Navanasyain the treatment of Apabahuka³ Hence this trial is conducted on evaluate the efficacy of Shulaharagrithanasya in the management of Apabahukavis-a vis Frozen shoulder.

Shulaharagritha is described in sahasra yoga is indicated in shulapradhanavyadhi,⁴ hence it is selected for Navanasya in trial group (Group B). It possesses the properties of vatakaphahara, vedanastapana, brumhana properties. Ashwagandhagritha was taken as control group (Group A)⁵ Trayodashangaguggulu described in Chakradatta indicated in Apabahuka was used in the present study for internal administration⁶. From this perspective the current study was undertaken to evaluate the efficacy of Shulaharagrithanasya karma in the management of Apabahuka vis-à-vis Frozen shoulder.

The present study was a controlled clinical study with pre and post test design. Present study was conducted on 50 subjects who fulfilled the diagnostic criteria Apabahuka vis-à-vis Frozen shoulder.

2. Objective of the Study

To evaluate the efficacy of Shulaharagrithanasya in the management of Apabahuka vis-à-vis Frozen shoulder.

3. Materials and Methods

Source of data

Subjects were selected from the OPD & IPD of Government Ayurveda Medical College & Hospital and Government Hi-tech Panchakarma Hospital, a teaching Hospital, Mysuru.

Study design

This study was a controlled clinical trial with pre-post test design. Total 50 subjects were registered, there is no dropouts.

Inclusion Criteria

- 1) Subjects irrespective of gender and in the age group 18 to 60 years with signs and symptoms of Apabahukavis –a-vis Frozen shoulder were selected for the study.
- 2) Freshly detected and treated cases (with the flush out period of 7days) of Apabahukavis-a-vis Frozen shoulder were selected for the study.

Exclusion Criteria

Subjects with the history of fracture and dislocation of shoulder joint, uncontrolled Diabetes mellitus (>200mg/dl)

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were excluded, systemic disorders which interferes with the course of intervention were excluded.

- 1) Subject unfit for Nasya karma were excluded.
- 2) Pregnant and lactating women were excluded.

Diagnostic Criteria

The diagnosis was made based on the lakshana of Apabahuka and signs and symptoms of Frozen shoulder.

- 1) Bahupraspanditahara (Restricted movements of shoulder joint).
- 2) Amsasandhishula and bahushula (shoulder joint pain).
- 3) Plain X-ray of shoulder joint (AP view).

Assessment Criteria

Assessment was done based on following parametrs.

Shula:

- P3 – Severe pain
P2 - moderate pain
P1- mild pain
P0 - No pain.

Restricted movements of shoulder joint was assessed by Goniometer.

Abduction – 0 -180⁰

Adduction - 0 - 45⁰

Flexion – 0 -180⁰

Extension – 0 - 60⁰

Rotation – a. Internal rotation – 0 -70⁰

b. External rotation – 0 - 90⁰

Statistical Methods

The results were analysed statistically by using descriptive statistics and cramer's V test using service product for statistical solution (SPSS) for windows software.

Intervention

In group A Nasya karma with Ashwagandhagritha in a dose of 8 bindu(4ml) to each nostrils for 7 consecutive days and Trayodashangaguggulu internally. However in Group B Nasya karma with Shulaharagritha in a dose of 8 bindu(4ml) to each nostrils for 7 consecutive days and Trayodashangaguggulu internally.

The assessment was done on the following three schedules.

Pre test assessment was done on 0day before intervention.

Mid test assessment was done on 8th day after the completion of Nasya karma.

Post test assessment was done on 15th day after the completion of intervention.

4. Observation and Results

The data was collected from the subjects based on diagnostic criteria .The result were analysed statistically using cramer'V test.

Result on Flexion

In Group A, before intervention 04 (16%) subjects had severe restricted flexion, 14 (56%) subjects had moderate and 7 (28%) subjects had mild restricted flexion movement. After the intervention 23 (92%) individuals had complete relief and 2 (08%) subjects had moderate relief.

In Group B, before intervention 06 (24%) subjects had severe restricted flexion, 9 (36%) had moderate and 10(40%)had mild restricted flexion movement. After the intervention 21 (84%) subjects had complete relief, where as 4 (16%) subjects had moderate relief.

Thus the result obtained within the group is highly significant with the P value 0.000

Table 1: Showing descriptive statistics on Flexion

	Group	Mean	Std.Deviation	N
Flexion 0 day	A	115.60	19.382	25
	B	118.40	28.965	25
	Total	117.00	24.432	50
Flexion 15 th day	A	176.8000	9.45163	25
	B	174.4000	10.83205	25
	Total	175.6000	10.13380	50

Result on Abduction

In Group A, before intervention 07 (28%) individuals had severe restricted abduction, 09 (36%) had moderate and 9 (36%) had mild restricted abduction. After the intervention 23 (92%) subjects were completely relieved from restricted abduction and 02 (08%) had moderate relief.

In Group B, before intervention 08 (32%) subjects had severe restricted abduction, 10 (40%) individuals had moderate and 07(28%) had mild restricted abduction. After the intervention, 22 (88%) subjects had complete relief and 3(12%) had moderate relief.

Thus the result obtained within the group is highly significant with the P value 0.000.

Table 2: Showing descriptive statistics on Abduction

	Group	Mean	Std.Deviation	N
Abduction 0 day	A	108.0000	21.79449	25
	B	112.0000	25.33114	25
	Total	110.0000	23.47382	50
Abduction 15 th day	A	177.6000	8.79394	25
	B	176.0000	10.00000	25
	Total	176.8000	9.35469	50

Results on Severity of pain

In Group A, before intervention 15 (60%) subjects had severe pain, 9 (36%) had moderate pain and 1(4%) subject had mild pain. After the intervention 21 (84%) were completely relieved from pain and 4 (16%) had moderate relief from pain.

In Group B, before intervention12 (48%) subjects had severe pain, 13 (52%) had moderate pain.after the intervention 22(88%) subjects were completely relieved from pain and 3(12%) subjects had mild pain.

Table 3: Showing descriptive statistics on Pain.

	Group	Mean	Std. Deviation	N
Pain 0 day	A	2.5600	.58310	25
	B	2.4800	.50990	25
	Total	2.5200	.54361	50
Pain 15 th day	A	.2800	.54160	25
	B	.1200	.33166	25
	Total	.2000	.45175	50

5. Overall Assessment

The improvement was graded with following manner:

Flexion -complete relief in 44(88%) subjects, moderate relief in 6(12%) , abduction-complete relief in 45 (90%) individuals, 5(10%) had moderate relief.And pain showed complete relief in 43(86%) clients, moderate relief in 4(8%) subjects, mild relief in 3(6%) individuals.

	Flexion	Abduction	Pain
Marked improvement	44(88%)	45 (90%)	43(86%)
Moderate improvement	6(12%)	5(10%)	4(8%)
Mild improvement	-	-	3(6%)

6. Discussion

Apabahuka is a shulaand stabdhapradanavatavyadhi, caused by excessive intake of vataprakopakaraahara and vihara .In the present clinical study Apabahuka is considered with special reference to frozen shoulder. The general vatavyadhichikitsa applicable to Apabahuka based on the lakshana and the sthana of the disease and the treatment methods which are directly mentioned as the chikitsa sutra of Apabahuka. Among all the treatment modalities mentioned, among Snehananasya was adopted as intervention in this study as it helps in dhatuposhana and brings vata to normalcy. Snehananasya is a variety of navananasya which provides strength to all the dhatu and is used as dhatuposhaka. It provides strength to greeva, skandha and uras. It can be considered as a useful modality of management in dhatukshayajanyaurdhwajatrugatavatavyadhi where brumhana effect is specifically intended. Its specific effect on Apabahuka was evaluated in this clinical trial.Shulaharagritha highlights its usefulness in the management of Apabahuka vis-à-vis Frozen shoulder in the form of snehananasya karma and is told to be best in shulapradhanaroga. The Trayodashangaguggulu acts asvatahara, shulahara and shothahara. The combined effect of nasya and trayodhashangaguggulu majority of patient has gotrelif from symptoms.

7. Conclusion

Apabahuka is one among the vedanapradhanavatavyadhi. Vitiated vatadoshalocalises in amsapradesha and by contraction of sira leads to the shosha of muscles of the shoulder. The dushya such as asthi, mamsa, meda and srotas. Shulaharagritha explained in grithaprakarana of Sahasra yoga is a formulation indicated in shulapradhanaroga. Snehananasya is a variety of navananasya which provides strength to all the dhatu and is used as dhatuposhaka. It provides strength to greeva, skandha and uras. It can be considered as a useful modality of management in dhatukshayajanyaurdhwajatrugatavatavyadhi where Brumhana effect is specifically intended. Its specific effect on Apabahuka was evaluated in this clinical trial.Shulaharagritha highlights its usefulness in the management of Apabahuka vis-à-vis Frozen shoulder in the form of snehananasya karma and is told to be best in shulapradhanaroga.Different nomenclatures in classical texts for Snehananasya are tarpananasya in Charakasamhita as it

has tarpana effect, brumhananasya in Ashtangahridaya andKashyapasamhita as it does brumhana karma. Comparison between the groups showed that both the groups were effective in reducing symptoms of Apabahuka. Statistically the results of restricted movements of flexion and abduction between the groups was non- significant with the p value 0.627 and 0.609 and pain with the p value 0.079 indicating equal effectiveness of both the groups. No adverse or side effects were observed during the study period.

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