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A comparative clinical study on the efficacy of Nasya with Pinyaka / Panchamula Taila and Swalpa Masha Taila in Apabahuka w.s.r. to frozen shoulder

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ABSTRACT

Background: Apabahuka is a Vataja Nanatmaja Vyadhi, in which locomotive functions of Amsa Sandhi are affected mainly due to Vata Dosha Prakopa causing pain, stiffness and restricted movement of the shoulder. Apabahuka can be correlated to Frozen shoulder or Adhesive Capsulitis in modern medicine because of similar symptomatology. Nasya is indicated in Urdhwajatrugata Vikaras. Pinyaka Taila and Swalpa Masha Taila are Vatahara Taila used for Nasya. **Method:** A single blind randomised clinical study in which 40 clinically diagnosed patients of Apabahuka, fulfilling the inclusion criteria were selected and divided into two groups - Group A treated with Pinyaka / Panchamula Taila Nasya and Group B treated with Swalpa Masha Taila Nasya, comprising of 20 patients each. **Result:** Statistically Nasya with Pinyaka Taila showed better results in Pain (51.2%), Stiffness (48%), Tenderness (58.33%), with improvement in goniometric readings of shoulder ROM than Nasya with Swalpa Masha Taila in Pain (39.4%), stiffness (40.9%), Tenderness (58%). **Discussion:** Rukshadi Gunas of Vata are increased in Apabahuka hence Viparita Gunas like Snigdhadi in the form of Brumhana Nasya with Pinyaka Taila was found to be effective in Apabahuka. In the present study Group A Nasya with Pinyaka Taila showed better effect than Group B Nasya with Swalpa Masha Taila.

Key words: Apabahuka, Nasya, Pinyaka / Panchamula Taila, Swalpa Masha Taila, Frozen Shoulder.

INTRODUCTION

Today many of the diseases develop due to faulty lifestyle and dietary habits which is driven by stress. *Apabahuka* is not life threatening disease but hampers the day to day routine activity of an individual.

Apabahuka is a Vataja Nanatmaja Vikara, involving

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Vata Dosha, which affects the Amsa Sandhi.^[1] The vitiated Vata Dosha localizes in the Amsa Pradesha leading to pain, stiffness in the shoulder with restricted joint movement. On the basis of similarity of symptoms, Apabahuka can be compared to Frozen shoulder.

The lifetime prevalence of frozen shoulder is estimated to be 2% -5% of the general population. The condition by which glenohumeral restriction is present from onset but progresses and reaches maximum as the pain is receding. [2] In the early phase, there is marked joint capsular tenderness and stress pain and later there is painless restriction of all movements.

Nasya is considered as highly effective in Urdhwajatrugata Vikaras and is indicated in Apabahuka. Acharya Vagbhata has especially mentioned Nasya and Uttarabhaktika Snehapaana. This study was done to assess the effect of Pinyaka/

Panchamula Taila,^[3] which is mentioned in Charaka Samhita and Ashtanga Hridaya as a Vatahara Taila is being taken for Nasya Karma in the management of Apabahuka for group A whereas Nasya with Swalpa Masha Taila^[4] which is mentioned in Charaka Samhita for Group B.

MATERIALS AND METHODS

Source of Data

Literary source

Literary aspect of the study was collected from classical Ayurvedic and modern text books and updated with recent medical journals and internet sources.

Clinical Source

40 patients suffering from *Apabahuka*, fulfilling the inclusion criteria were randomly selected for this study, from the OPD and IPD of MIAMS, Manipal, Udupi, Karnataka.

Pharmaceutical source

After proper identification, the raw drugs were collected from genuine sources and *Pinyaka / Panchamoola Taila* was prepared at MIAMS pharmacy as per the Standard Operative Procedure.

Sample Size

40 clinically diagnosed patients of *Apabahuka* were randomly selected based on inclusion criteria. They were equally divided into Group A and Group B, 20 patients in each group.

Group A: Nasya Karma with Pinyaka/Panchamoola Taila

Group B: Nasya Karma with Swalpa Masha Taila

Subject Selection

Inclusion Criteria

- Patients suffering from classical signs and symptoms of Apabahuka will be selected.
- Patients of either sex, irrespective of caste and religion.
- Patients between the age group of 20-80 years.

Patients who are fit for Nasya.

Exclusion Criteria

- Patients less than 20yrs and above 80yrs.
- Patients unfit for Nasya.
- Patients with other serious systemic and infective disorders.
- Grave conditions like Fracture of the shoulder, Ankylosing Spondylitis, Spinal canal stenosis, malignancies etc.

Assessment Criteria

A detailed proforma will be prepared for the assessment of subjective and objective parameters. The data obtained will be analyzed statistically.

Subjective Parameters

Amsasandhi Shoola - shoulder pain (Assessed by Visual Analogue Scale).

Figure 1: VAS (Visual Analogue Scale)

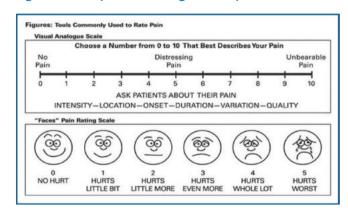


Table 1: Pain Gradation

Pain	Grade	ВТ	AT	AF
No Pain	0 - No pain (VAS)			
Mild Pain	1 - Upto 3 (VAS)			
Moderate Pain	2 - (4-6 VAS)			
Severe Pain	3 - (7-8 VAS)			
Intolerable pain	4 - (9-10 VAS)			

Amsasandhi Stabdhatha - shoulder stiffness

Table 2: Stiffness Gradation

Symptoms	Grade	вт	AT	AF
No Stiffness	0			
Mild-Difficulty in moving joints without support	1			
Moderate-difficulty in moving can lift only with support	2			
Severe-unable to lift	3			

Objective Parameters

Tenderness

Table 3: Tenderness Gradation

Symptoms	Grade	вт	AT	AF
No tenderness	0			
Pain on pressure	1			
Winces with pain	2			
Winces and withdraws the affected part	3			
Does not allow to touch the affected part	4			

Bahupraspandhitahara - Restricted movements of shoulder region (Goniometer reading).

Table 4: ROM Goniometric reading

Movement	Joint involved		вт	AT	AF
Flexion					
Extension					
Abduction					
Adduction					
Internal rotation					
External rotation					

Interventions

It is a comparative clinical study of 40 patients diagnosed with *Apabahuka*, who were selected as per

inclusion & exclusion criteria and divided randomly into two groups each comprising of 20 patients.

Group A: Nasya Karma with Pinyaka/ Panchamula Taila

- Purva Karma: Sthanika Abhyanga with Murchita Tila Taila and Bashpasveda with Dashamoola Kwatha.
- Pradhana Karma: Nasya Karma with Pinyaka/ Panchamula Taila.
- Paschat Karma: Kavala with Sukhoshnajala and Dhoomapaana with Haridra Choorna, proper rest and diet advised.

Group B: Nasya Karma with Swalpa Masha Taila

- Purva Karma: Sthanika Abhyanga with Murchita Tila Taila and Bashpasveda with Dashamoola Kwatha.
- Pradhana Karma: Nasya Karma with Swalpa Masha Taila
- Paschat Karma: Kavala with Sukhoshnajala and Dhoomapaana with Haridra Choorna, proper rest and diet advised.

Posology: 8 Bindu in each nostril.

Both the groups were treated for a period of 7 days.

RESULTS

Comparative effect of treatment on Pain in Group A and Group B

In Apabahuka, pain is felt due to Vata Prakopa caused by various Nidanas. By doing Nasya and its Purva Karma like Sthanika Abhyanga and Svedana, Vata Shamana occurs, which reduces the pain.

Group A - 51.2% improvement in pain

Group B - 39.4% improvement in pain

Comparative effect of treatment on Stiffness

Stiffness occurs due to *Sira Sankocha* and *Sleshaka Kapha Kshaya* thereby producing *Bahupraspanditahara* (restricted movement of *Bahu*). *Nasya* with *Pinyaka Taila* which contains *Laghu Panchamula*, *Pinyaka* and *Goksheera* can induce

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nourishment, bring *Snigdhata* to the *Sira Sankocha* thereby remove stiffness.

Group A - 48% improvement in stiffness

Group B - 40.9% improvement in stiffness.

Also, the after the treatment, range of movement increased, showing extremely significant results in Flexion, Extension, Abduction, Adduction, Internal rotation and External rotation which were assessed using Goniometric measurements.

Effect of treatment on tenderness

The drugs like *Laghu Panchamoola* in *Pinyaka Taila*, have *Vatahara*, *Shoolahara* and *Shophahara* property, which reduced tenderness.

Group A - 58.33% improvement in tenderness

Group B - 58.82% improvement in tenderness

Assessment of total effect of therapy

Overall response of the treatment in both groups

Overall effect of *Nasya* with *Pinyaka/Panchamoola Taila* in Group A and *Nasya* with *Swalpa Masha Taila* in Group B

Total Effect	Percentage	Group A		Group B	
		N	%	N	%
Cured	100 %	0	0%	0	0%
Markedly improved	76-99%	3	15%	1	5%
Moderately improved	51-75%	3	15%	2	10%
Mildly improved	26-50%	12	60%	13	65%
Unchanged	<25%	2	10%	4	20%

DISCUSSION

The present day lifestyle which is full of physical stress and strain has led to the development of diseases which may not kill the person but hampers the daily routine activities and impair the quality of life. Apabahuka is one such disease in which Vata Dosha Dushti occurs which gets localized at Amsa Pradesha. This Vata Dushti does Sira Sankocha and Sleshaka Kapha Kshaya thereby producing Bahupraspanditahara (restricted movement of Bahu) and Amsa Sandhi Shoola.

Acharyas have not mentioned specific Nidanas for Apabahuka. But since it is a Vataja Nanatmaja Vikara, Vata is invariably involved. Hence the Nidanas which are mentioned for Vata Vyadhi are to be considered as Nidanas for Apabahuka. Apart from those Nidanas, some Nidanas like indulging in certain incorrect postures while sitting or lying down, or while using gadgets such as computers/phone, carrying heavy weight on one side of the shoulder, swimming or any direct trauma, improper diet, continuous use of AC/fan etc are practically observed in patients. These Nidanas do Vata Prakopa in Amsa Pradesha which causes Sira Sankocha and Amsa Bandhana Shosha leading to Apabahuka. In the present study maximum patients belonged to the desk job group who admitted to indulging in improper sitting/sleeping postures were found to be having Apabahuka.

The most common condition which resembles *Apabahuka* is Frozen shoulder or Adhesive Capsulitis which is characterized by pain and restricted shoulder movements. Adhesive Capsulitis may be triggered by local trauma, prolonged immobility of the arm, bursitis or tendinitis of the shoulder or may be associated with certain systemic disorders like MI, DM. Pathologically the capsule of the shoulder is thickened and a mild chronic inflammatory infiltrate and fibrosis may be present. In this condition pain and stiffness of the shoulder joint are the cardinal symptoms leading to restricted ROM.

The treatment modalities in Ayurveda are important in the management and prophylactic care of *Apabahuka* as modern medicine can harm the body with its potential side effects.

As the disease selected was *Apabahuka*, for which *Acharyas* have mentioned *Nasya* and *Uttarbhaktika Snehapaana*, so *Nasya* was selected in this study. The

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study was conducted in two groups namely group A treated with *Nasya* of *Pinyaka / Panchamula Taila* and Group B treated with *Nasya* of *Swalpa Masha Taila*.

Brumhana Nasya is Vatahara, hence reduces pain and stiffness. Nasya gives stimulation to the brain through the olfactory pathway thus inducing the production of neuro peptides which act as pain relievers.

The Paka of the Taila used for Nasya was Mrudu, which retains the water soluble principles along with lipid soluble particles at optimum level. The peripheral processes of the olfactory cells respond to volatile, water soluble and lipid soluble odourless chemical substances. The drug used for Nasva is of Mrudu Paka which maintains the water solubility for diffusing through the olfactory epithelium and lipid solubility for interacting with the lipids of the membranes of the olfactory receptors. All these factors contribute well for the specific ability of Sneha Nasya in stimulating the brain through olfactory pathway. In fact structures the Limbic system, including Thalamus, Hypothalamus, Hippocampus and parts of the basal ganglia are concentration areas for neuropeptides called nodal points. Nasya can stimulate areas like amygdala in limbic system thus activating the neuropeptide pathway.[5]

In shoulder stiffness, which is due to *Sira Sankocha* and *Amsabandhana Shosha*, *Nasya* with *Pinyaka Taila* provides relief, which contains *Laghu Panchamula* and *Goksheera* which brings nourishment and *Snigdhata* to the *Sira Sankocha* thereby removing stiffness, improves circulation. Also, *Laghu Panchamoola* have *Vatahara*, *Shoolahara* and *Shophahara* property, it also reduced tenderness.

Pinyaka is having *Ruksha Lekhana* property but it is also *Madhura, Pushti Balakaraka*.

Goksheera - used as Drava Dravya in Pinyaka Taila is Madhura, Snigdha having Sheeta Virya and does Vata Shamana which can combat the Ruksha and Lekhana property of Pinyaka.

Swalpa Masha Taila is also indicated for Apabahuka and gives relief in pain and more chronic conditions where Amsa Shosha has begun as compared to

Pinyaka/Panchamoola Taila. Masha in this Taila can do Brumhana because of its Madhura Rasa and Saindhava is Shoolahara because of Ushna Tikshna properties.

Discussion on Nasya and its mode of action

Nasya Karma is indicated in Apabahuka by different Acharyas. Acharya Vagbhata has quoted "Nasa Hi Shiraso Dwaram" i.e. the nose is the nearest and easiest opening for conveying the potency of medicine to Urdhwa Jatru. Acharya Sushruta opines that the Shrughataka Marma is a Sira Marma, situated at the site of the union of the Siras supplying to the nose, ear and tongue. Acharya Charaka in Siddhisthana has mentioned that the Nasya drug acts through absorption by Shrunghataka Marma. The drug administered through nose as Nasya reaches the Shrunghataka Marma, spreads in the Murdha (brain) taking along Marma of Netra, Karna, Kantha, etc. & eliminates the Prakupita Doshas out through the principle of 'Munjadishikhavat' 151 from Uttamanga.

Under the complications of *Nasya Sushruta*^[6] noted that excessive *Shodhana Nasya* may cause *Mastulunga* (CSF) to flow out through the nose.

It is experimentally proven fact that wherever any type of irritation occurs, the local blood circulation of that part increases which is a natural protective function of the body. Hence, when provocation and expulsion of *Doshas* occurs due to irritating effect of drug administered, it results in the increase of blood circulation of brain.

CONCLUSION

Apabahuka is one among the Vataja Nanatmaja Vyadhi. Here Vata and Kapha is involved.

Maximum incidence was seen in the age group of 41-60 indicating the faulty lifestyle which is a predisposing factor. Surprisingly there were 20% patients in the age group of 21-40 which may be due to the *Beeja Dosha* or idiopathic.

In Apabahuka, since Rukshadi Gunas of Vata are increased hence Viparita Gunas like Snigdhadi in the

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form of *Brumhana Nasya* with *Pinyaka Taila* was selected.

Pinyaka Taila is indicated Vataia in and Kaphanubandhi Vata Vikara, was found to be very effective in Apabahuka as it is a Vataja Nanatmaja Vikara and also has Kaphanubandhi in its Samprapti. In the present study, Group A - Nasya with Pinyaka Taila showed better effect than Group B Nasya with Swalpa Masha Taila. According to modern science, Apabahuka is compared to Frozen Shoulder on the basis of their etiology, signs and symptoms. No present treatment protocols are universally effective and there is a strong need for further research and development of more effective treatment strategies. Morbidity from this condition has significant individual and societal cost, and disability is always long-lasting, if not permanent.

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