

A COMPARATIVE CLINICAL STUDY OF BUSHA PINDA SWEDA AND KOLAKULATHADI PINDA SWEDA (APABAHUKA)**Raj Krishnan U R¹, Karthikeya Prasad²****¹PG Scholar, ²Professor & HOD, Department of P.G studies in Panchakarma, Karnataka Ayurveda Medical College and Hospital, Mangalore, D.K District, Karnataka, India**DOI: <https://doi.org/10.47071/pijar.2020.v05i06.005>**ABSTRACT**

Life without movement is the worst tragedy that can happen to any living organism. That can be one of the main reasons for Ayurvedic literature considering Vataja Vikaras more important compared to disorders caused due to morbidity of other doshas. Apabahuka is one among those vatavyadhi, which result in karmakshaya of bahu, is widely observed in the present time. In the classics it is explained under the heading of nanatmaja vata vyadhi. Numerous diseases affecting shoulder joint explained in the conventional medicine comes under the realm of apabahuka. Pinda sweda a type of sankra sweda is considered as the treatment choice in management of *apabahuka* said to be effective in *vatavyadhi*'s like *apabahuka*. Since pain and stiffness of the shoulder joint is the important symptoms of this disease, Literature enlists different type pinda sweda in vatavyadhi. Tusha/busha pinda sweda is cost effective among this. And *kolakulthadi pinda sweda* in *vata* originated diseases. Keeping these points in mind this particular clinical study was done with *busha pinda sweda* and *kolakulthadi pinda sweda* in patients suffering with *apabahuka*. The study is a single blinded clinical study with pre and post test design. 40 patients suffering from Apabahuka of either sex in an age limit between 30-60 years were selected from O.P.D and I.P.D of Karnataka Ayurveda hospital, mangalore were randomly selected for the study. 20 patients Busha pinda sweda had done for 7 days and another 20 patient Kolakulthadi pinda sweda had done for 7 days. The patient of both group will be assessed on 0th, 7th, 21 days. Therapeutic effect of the procedures will be assessed by the parameters and result will be analyzed statistically. Hence it can be concluded that Kolakulthadi choorna pinda sweda is more effect than Busha pinda sweda it having more effect on symptoms of apabahuka shows long lasting result.

Keywords: Vata vyadhi, Apabahuka, pinda sweda etc**INTRODUCTION**

Ayurveda an eternal science of healthy living treasures, deals with physical,

psychological and spiritual wellbeing of the human being and covers all the aspect of human life. Human life is

considered as the invaluable opportunity to achieve the prime goals of life viz *Dharma, Artha, Kama* and *Moksha*. To achieve all these things, one needs a healthy life.

Pain is one such symptom, which bothered human being since time immemorial. Pain may be at different sites having different origins but having an effective remedy of pain man is still searching around. The need of the hour is a treatment which not only relieves a person from his disability and dependency but also improves the quality of life by improving the mobility and minimizing the disability

This procedure of eliminating the excessively vitiated *doshas* are carried out in three sequential consists of three phases' viz. *Purva Karma, Pradhana Karma,* and *Paschaat Karma*¹. For the easy, proper, and effective administration of the *Shodhana Karma* it is essential to prepare the body by specific therapeutic procedures. These preliminary procedures include *Deepana, Pachana, Snehana* and *Swedana*, and are referred by the name *Poorvakarma*².

Besides being the principal *Purva Karma* procedure, *Swedana* is the

specific treatment for several conditions especially in *Vata* dominant diseases where *Swedana* may be a *Pradhana Karma*³. *Charaka* included *Sweda Karma* in *ShadupakrAmas* shows its importance as a principal method of treatment.

In the fast-developing technological era, most of the diseases may not be life threatening but hamper day to day life and human productivity. *Apabahuka* is one among those diseases which is painful and affects the normal routine lifestyle of an individual. It is one among the *Vatavyadhi* affects the normal functioning of the upper limbs. The signs and symptoms of *Apabahuka*, resemble that of Frozen Shoulder. Self-reported prevalence of shoulder pain is estimated to be between 16-26%. It is the third most common cause of musculoskeletal consultation in Primary Care. 5% of consecutive new patients attend a shoulder clinic for the complaint of Gleno humeral disorders like Frozen shoulder. The estimated prevalence is 11-30% in diabetic patients and 2-10% in non-diabetics. It is more common in women between the ages of 40-70. Generally, the sufferers go for usage of analgesics, corticosteroids, anti-inflammatory

drugs. Considering the above prevalence & incidence rate need arises to treat the same with less cost and least side effects.

Pinda sweda a type of *sankara sweda* is considered as the treatment choice in management of *Apabahuka*. *Sankara sweda* is one among the *13sagni sweda* procedure described by *Acharya Charaka*.⁴ *Busha Pinda Sweda* and *Kolakulatha Pinda Sweda* are widely accepted treatment method in *Apabahuka*. *Vridha vagbatta* explained in *Ashtanga sangraha* about both *Busha pinda sweda* and *Kolakulatha pinda sweda* in vata originated diseases^{5,6} and *Apabahuka* as one among the *vata vyadhi*. *Busha* is cost effective Hence *Busha pinda sweda* and *kolakultha pinda sweda* are selected for study to observe their effect on the signs and symptoms of *Apabahuka*.

AIMS AND OBJECTIVES

1. To evaluate the therapeutic effect of the *Busha pinda sweda*
2. To evaluate the therapeutic effect of *Kolakulathadi choorna pinda sweda*
3. To evaluate the comparative effect of *Busha pinda sweda* and *kolakulathadi choorna pinda sweda*

METHODOLOGY

METHOD OF COLLECTION OF DATA

Sample Size:

Minimum 40 patients with a definite diagnosis of fulfilling the diagnostic, inclusion criteria of *Apabahuka* were selected for the study, Patients were grouped into two groups of each size 20. For group A *Busha pinda sweda* and for group B *Kolakulathadi pinda sweda*.

DIAGNOSTIC CRITERIA

The diagnosis is mainly based on the classical *lakshana* of *apabahuka* described as in classics.

- *Amsasandhishoola*
- *Amsasandhistabdatha*
- *Bahupraspandithahara*

INCLUSION CRITERIA

Patients with *apabahuka* of either sex and age group of 30-60 years were taken for the study irrespective of caste, religion etc.

EXCLUSION CRITERIA

- Patient suffering from any other local shoulder pathology, dislocation and systemic disorders which would interfere with the present study.
- Pregnant and lactating mothers
- Malignancy condition

STUDY DESIGN

A Randomized Comparative Clinical Trail.

INTERVENTION

GROUP A- *Busha Pinda Sweda* will be done for 7days in 20 patients.

GROUP B- *Kolakulathadi Pinda Sweda* will be done for 7days in 20 patients.

STUDY DURATION:

- 7 days course of *Pindasweda* will be done to patients
- Follow-up after 7 days of the treatment, the patient of both Group will be assessed on 0th, 7th and 14 Days.

ASSESSMENT CRITERIA

- The assessment is based on the effect of the therapy by giving suitable scores, application of clinical tools, *samyaklakshna* of *swedana*, and changes in signs and symptoms of *apabahuka*. Subjective parameter like *amsasandhishoola*,

amsasandhistabdhatha, tenderness and objective parameters like range of motion (ROM) including flexion, external rotation, Internal rotation, abduction will be assessed by using goniometer.

SUBJECTIVE PARAMETERS

1) *Amsasandhishoola*

2) *Amsasandhistabdhatha*

OBJECTIVE PARAMETERS

RANGE OF MOVEMENT

- Flexion
- External Rotation
- Internal Rotation
- Abduction

STASTICAL ANALYSIS:

OBSERVATIONS AND RESULTS

The observation gives detail descriptive statistical analysis about all the 40 patents suffering from *Apabahuka*.

RESULTS

Statistical analysis of Subjective and Objective parameters

Group	Mean score				%	S.D (±)	S.E (±)	Wilcoxon Z Value	p value
	BT			BT-AT					
Group A on <i>Shoola</i>	2.20	AT	1.55	0.65	29.55	0.671	0.154	2.85	<0.05
		AF	0.95	1.25	56.82	0.851	0.195	3.52	<0.05
Group B on <i>Shoola</i>	2.15	AT	1.20	0.95	44.19	0.510	0.117	3.62	<0.05
		AF	0.50	1.65	76.74	0.671	0.154	3.82	<0.05
Group A on <i>Stabdata</i>	2.00	AT	1.05	0.95	47.50	0.605	0.139	3.52	<0.05
		AF	1.00	1.00	50.00	0.725	0.166	3.40	<0.05
Group B on <i>Stabdata</i>	2.00	AT	1.05	0.95	47.50	0.605	0.139	3.52	<0.05
		AF	1.00	1.00	50.00	0.725	0.166	3.40	<0.05
Group A on <i>Flexion</i>	1.95	AT	1.15	0.80	41.03	0.894	0.205	2.86	<0.05
		AF	1.10	0.85	43.59	0.933	0.214	2.90	<0.05

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Group B on Flexion	2.05	AT	1.15	0.90	43.90	0.553	0.127	3.52	<0.05
		AF	0.90	1.15	56.10	1.268	0.291	2.88	<0.05
Group A on External Rotation	1.35	AT	0.85	0.50	37.04	0.607	0.139	2.54	<0.05
		AF	0.70	0.65	48.15	0.813	0.186	2.66	<0.05
Group B on External Rotation	1.40	AT	0.80	0.60	42.86	0.754	0.173	2.62	<0.05
		AF	0.55	0.85	60.71	0.813	0.186	3.06	<0.05
Group A on Internal Rotation	1.50	AT	1.15	0.35	23.33	0.671	0.154	1.96	>0.05
		AF	1.10	0.40	26.67	0.503	0.115	2.52	<0.05
Group B on Internal Rotation	1.85	AT	1.00	0.85	45.95	0.671	0.154	3.29	<0.05
		AF	0.50	1.35	72.97	0.671	0.154	3.82	<0.05
Group A on Abduction	2.05	AT	1.20	0.85	41.46	0.587	0.135	3.40	<0.05
		AF	1.15	0.90	43.90	0.788	0.181	3.18	<0.05
Group B on Abduction	2.15	AT	1.25	0.90	41.86	0.447	0.103	3.62	<0.05
		AF	0.65	1.50	69.77	0.761	0.175	3.82	<0.05

Comparative results of Signs and Symptoms of Group-A and Group-B.

Signs and Symptoms	Group A (Mean Score)	Group B (Mean Score)	Z-Value of Mann Whitney	U Value	P Value
<i>Shoola</i>	1.57	1.28	1.47	145.00	>0.05
<i>Stabdata</i>	1.35	1.23	0.93	165.00	>0.05
Flexion	1.40	1.37	0.71	164.00	<0.05
External Rotation	0.97	0.92	0.24	190.50	>0.05
Internal Rotation	1.25	1.12	0.40	184.50	>0.05
Abduction	1.47	1.35	0.67	174.50	>0.05

Comparative results of Group A and Group B

Group A	Group B	Mean Difference	SE(±)	Z-Value of Mann Whitney	U Value	P value
45.33	68.17	22.84	4.77	3.54	68.50	<0.05

Comparative analysis of the overall effect of the treatments in both the groups was done by statistically with Mann Whitney test. The test shows that the treatment is significant in Group B when compared to Group A. Group A overall result is 45.33% and Group B overall result is 68.17%.

DISCUSSION

Apabahuka is explained as one among the Nanatmaja Vata Vyadhi where there is karmakshaya of amsasandhi and bahu present due to pain and stiffness in the affected part. The clinical manifestations like painful shoulder, stiffness, and decreased range of movements characterize the illness Apabahuka. From the overall view of etiology it is obvious that precise etiological factor is vata dosha but other doshas can also modify the clinical presentation in which kapha is the major one than the rest.

Being a Vata vyadhi, the general principles of treatment of Vatavyadhi is also applicable to Apabahuka. Snehana, Swedana. Depends on the samprapti involved ie dhatukshayaja or margavarana the selection of treatment varies Since it is a VataKapha Vikara and Avarana is the resultant, Swedana would be an ideal line of treatment. In the contemporary science treatment is mainly aimed at Non– pharmacological methods and analgesics. Among Non–

pharmacological treatment physical heat therapy is given important Apabahuka is characterized by joint pain, and stiffness. The heat applied to the affected area helps in combating many of the symptoms. In this disease, Vata is the most culprit but Kapha is also having significant role in the manifestation of disease. So Swedana procedure which is aiming at Kapha as well as Ama Here comes the role of Rooksha Sweda. As perclassics, apabahuka is not only mentioned in Vatavyadhyadhikar narrated in AmaVatadhikara also. Thus the management of both holds good for apabahuka. Therefore Kolakulathadi Choorna and busha choorna which are told in Vatavyadhi and AmaVata context respectively are thought for Swedana, in the form of Pinda Sweda. As it is having the properties of both Vata and KaphashAmana Apabahuka is one of the Nanatmaja Vata Vikaras and is characterized by shoola and sthabdhata of the shoulder joint. Ample references about the diseases of Vata Pitta and

Kapha is available in the literatures of Veda kala, but the citations about the term Apabahuka is not present. Detailed description from Nidana to Chikitsa can be found in the literatures of Samhita kala and onwards.

Shoulder joint is known as Kaksha sandhi or Amsa sandhi which comes under category of Bahu Cheshta sandhi and Samudga Sandhi. The Kapha dosha present in the sandhi helps for lubrication in the sandhi aids in the movements like prasarana, akunchana. Vitiating of Kapha along with Vatadosha either qualitatively or quantitatively may lead to impairment in the range of movements.

Shoulder joint is an articulation between humerus and scapula and also known as Gleno-Humeral joint. It is a Synovial type of joint with Ball and Socket type and Poly-axial sub type. The articulation of humeral head with the glenoid cavity of scapula forms the joint. The synovial membrane of the shoulder joint lines the inner surface of the fibrous capsule and protrudes through the opening in front of capsule to communicate with sub-scapular bursa and sometimes with infra spinatus bursa behind the capsule.

The specific Nidana of Apabahuka is not

separately mentioned. As it is a Vataja Nanatmaja vikara, the Nidana of Vatavyadhi in general is also being considered as the Nidana of Apabahuka. All the nidana may be subdivided into aharaja, viharaja, agantuja, manasika etc.

Indulgence of various etiological factors leads to the accumulation of the vata dosha in the amsapradesha and cause the shoshana of the amsabandhana or siraakunchana, which in turn leads to manifestation of kevala vataja Apabahuka. Further kshaya of the dhatu causes the prakopa of the vata and then leads to the amsa shosha. This unique pathology is described as dhatukshayajanya Apabahuka. Sometimes due to Kaphakara nidana, the kapha gets aggravated in the sandhi which impedes the chala guna of the vata leading to the occurrence of apabahuka. This distinct pathology is referred as kapha samsargaja apabahuka.

Poorva roopa can be taken as minor symptoms of disease produced before the actual manifestation of disease. In Apabahuka vague shoulder pain, mild stiffness in the upper extremities, mild restricted movements and similar other symptoms in its minimal severity may

be considered as Poorva roopa.

Due to the specific nidana there will be vitiation of Vayu. This Vitiated Vayu gets accumulated in the Amsa Sandhi and further afflicts the Sira, Kandara, Snayu, Rakta, Mamsa, Meda and Asthi Dhatu involving the respective Srotas and produces the Shoola in Amsa and Bahu Pradesha with bahupraspandahara.

Though Apabahuka is characterized by restricted movements of the shoulder joint, stiffness and pain, it may be difficult to make a differential diagnosis between the conditions like Amsashosha, Vishwachi and EkangaVata. The differentiation between these disorders can be made easily by analyzing the site of the disease, course of pain, character of pain, severity, associated conditions and functional disability in patients.

The treatment is classified mainly into two types viz: *santarpana* and *apatarpana*. In *Apabahuka* either procedure is indicated based on the cause of the disease. *Rooksha Pinda sweda* is a type of *apatarpana chikitsa*. This type of *apatarpana* treatment is helpful in *kapha samsargaja apabahuka*. In *kevala Vataja* and *Dhatukshayajanya Apabahuka*, the

Samanya Vatavyadhi Chikitsa like *Snehana, Swedana, Abhyanga, Basti*, etc. are the choice of treatment.

Discussion on Clinical study

This clinical study is a sincere effort to add newer combinations of *shamana* treatment with proved efficacy to the list already present. The present work is carried out with the hope that the treatment adopted here may have some edge over the other combinations prescribed in routine practice.

The materials and methods of the present work with complete description of the assessment criteria are given here. The descriptive statistical analysis of the sample taken for the study is methodically elaborated. The observations, results and their statistical analysis are presented in order with tables and graphs.

In the chapter entitled discussion, the results obtained are critically analyzed to reveal the truth of efficacy of the combination taken for the study. The final conclusions drawn from the present clinical research work are detailed in the chapter summary and conclusion.

Discussion on Procedure- Rooksha Sweda

Apabahuka is a *Vatavyadhi* by its nature. The condition *apabahuka* is affecting the shoulder region with the symptoms such as pain and stiffness. *Vata* is vitiated either because of *Avarana* or *Dhathukshya* when *Vata* covered by *Kapha* or *Dosha* accumulation makes *apabahuka*. In initial stage of the disease the *Kapha anubandam* is attributed the *Vata* and *Kapha dosha lakshna Rooksha Sweda* is told for *srotoshodhana* there by subside the vitiated *Kapha* which is in the *amsapradesha* and for this purpose, *Kolakulathadi choorna* & *busha choorna* are used which relieves the pain and *stambatwa*. By *Swedana* we can get the effects like *twak mruduta*, *twakprasada*, *srotoshodhana*, *stabdhatwa* in the *sandhis* are relieved and becomes easy for *chesta*. Acknowledge. Ayurveda advocates a reliable management of this condition through highly efficiencies and easily available drugs.

In the classic, the treatment is told as *Rooksha Sweda* where we consider *apabahuka* in the *doshic* level as *Vata* and *Kapha* are the two main factors

involved in the pathogenesis of *apabahuka*. Here the pain and stiffness are two symptoms present in the disease

Charaka while explaining the effects of *Swedana* he says it is best in *sankocha*, *ayama*, *shoola*, *sthambha* etc. all the *vikaras* of *sarvanga* and *ekanga*

Kolakulathadi Choorna

Most of the ingredients of *kolakulathadi churna* are having *Laghu ushna snigdha gunas* and *Kapha Vata hara* properties. *Apabahuka* being a *Vataja vyadhi* with *Kapha avarana* gets regressed by the usage of this *choorna* as *Rooksha Sweda*

Busha choorna

The procedure of *Swedana* by using *busha choorna* is also a variety of *ushma Sweda* and also it is cost effective. *busha* having the property of *lekhana* and pacifies the *Kapha*, by which *Vata* can be easily pacified. By the depletion of *Kapha* the channels get clarified resulting in lightness of body.

DISCUSSION ON RESULTS:

Effect on *shoola*: Patients *apabahuka* treated with BPS had highly significant relief in pain o 44.19%

which became 76.74% after 7 days of follow up. Patients of *Apabahuka* treated with KCPS got highly significant relief of 29.55% in pain which became 56.82% after 7 days of follow up. The comparison showed that the relief in KCPS group is better in comparison to BPS.

Effect on *stabdata*: Patients *apabahuka* treated with BPS had highly significant relief in stiffness 47.50% which became 50.00% after 14 days of follow up. Patients of *Apabahuka* treated with KCPS got highly significant relief of 43.90% in pain which became 75.61% after 14 days of follow up. The comparison showed that the relief in KCPS group is better in comparison to BPS.

Effect on flexion: Patients *apabahuka* treated with BPS had highly significant relief in pain of 41.03% which became 43.59% after 7 days of follow up. Patients of *Apabahuka* treated with KCPS got highly significant relief of 43.90% in pain which became 56.10% after 14 days of follow up. The comparison showed that the relief in KCPS group is better in comparison to BPS.

Effect on External rotation: Patients

apabahuka treated with BPS had highly significant relief in pain of 37.04% which became 48.15% after 14 days of follow up. Patients of *Apabahuka* treated with KCPS got highly significant relief of 42.86% in pain which became 60.71% after 14 days of follow up. The comparison showed that the relief in KCPS group is better in comparison to BPS.

Effect on Internal rotation: Patients *apabahuka* treated with BPS had highly significant relief in pain of 23.33% which became 26.67% after 14 days of follow up. Patients of *Apabahuka* treated with KCPS got highly significant relief of 45.95% in pain which became 72.97% after 14 days of follow up. The comparison showed that the relief in KCPS group is better in comparison to BPS.

Effect on Abduction: Patients *apabahuka* treated with BPS had highly significant relief in pain of 41.46% which became 43.90% after 14 days of follow up. Patients of *Apabahuka* treated with KCPS got highly significant relief of 41.86% in pain which became 69.77% after 14 days of follow up.

The comparison showed that the relief in KCPS group is better in

comparison to BPS. In BPS group, out of 20 patients 15% No change has seen and only 5% got marked improvement and 30% patients were improved moderately. 50% had mild improvement. In KCPS group out of 20 patients, 30% got marked improvement and 45% got moderate improvement. Mild improvement is noticed in rest 25% of patients. There is no patients with un changed result.

DISCUSSION ON PROBABLE MODE OF ACTION:

Swedana karma is also a very useful *panchakarma* modality used as a *purvakarma* (preparatory procedures) and main therapeutic measure. *Swedana* is specially indicated in symptoms like *sankocha* (stiffness), *ayama* (pain), *shola* (tenderness), *stambha* (restricted movement), *Gaurav* (heaviness), *supti* (numbness) in this *shoola stambha* are cardinal symptoms of *Apabahuka*. In this way *Swedana* might play crucial role in relief of such symptomatology of *Apabahuka*.

Application of medicaments, heat and massage definitely helps in eliminating the number of noxious elements through skin. The application of heat in different forms

of *Swedana* promotes local circulation and metabolic activities and also opens the pores of the skin to permit transfer of medicaments and nutrients towards to needed sites. It also initiates elimination of vitiated *Doshas* and *Malas* through skin and perspiration.

CONCLUSION

On the basis of the conceptual analysis and observations made in the clinical study, with two different *choorna pinda Sweda* modalities at Karnataka Ayurveda medical college and Hospital, Manglore, the following conclusions can be drawn:

- 1) *Apabahuka*/Frozen shoulder is commonly seen in society as a main problem
- 2) The disease *Apabahuka* is one among the *nanathmaja vata vyadhi*.
- 3) Tenuous physical work, old age, diabetic and direct *abhiyata* are the predisposing factors in the manifestation of the disease.
- 4) No complications of *Sweda* (*atiyoga, ayoga* and *mitya yoga*) were observed in this study.
- 5) *Kolakulathadi choorna Pinda Sweda* group showed high significance in decreasing pain,

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stiffness and tenderness, and improving range of movements.

- 6) *Busha pinda Sweda* group also showed significant result in reducing pain and tenderness soon after the treatment but not as effectively as *kolakulathadi pinda sweda*.
- 7) The higher effectiveness of *kolakulathadi pinda sweda* could be because of the *vatakapha hara* property of its ingredients and *ushna teekshna guna* which helps to reduce the *shoola* and *stabdatha* seen in *apabahuka*.
- 8) Clinically, there was a good improvement shown by both groups after treatment. Statistically, Group B shows more significant improvement compared to Group A.

Thus, the alternate hypothesis H2 is accepted i.e there is significant effect of *kolakulathadi pinda sweda* over *busha pinda sweda* in *apabahuka*. That is to say *kolakulathadi pinda sweda* may be accepted in treating patients with *apabahuka* to reduce both signs and symptoms successfully.

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