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# A Comparative Clinical Study of *Patra Pinda Swedana* and *Parisheka* in *Avabahuka*

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## ABSTRACT

**Introduction:** *Avabahuka* is a *Vata Vyadhi* caused by vitiated *Vata- Kapha Doshas*. *Vata* causes wasting of *Amsa Bandhana* and *Siraakunchana* (constriction of vessels) and hampers the movement of *Amsa Sandhi*. *Avabahuka* causes problem in daily routine of an individual like wearing clothes, eating, personal hygiene etc. *Avabahuka* can be correlated with the symptoms of Adhesive capsulitis also known as Frozen Shoulder. It causes painful restriction, with significant loss of range of motion of the shoulder joint. As there is no promising and satisfactory treatment available in modern system of medicine. *Panchakarma* provides effective treatment through *Shodhana* therapy. *Acharya Charaka* has recommended *Snehana- Swedana* for the treatment of *Vata-Kaphaj* disorder. **Methods:** 40 patients of *Avabahuka*, were randomly divided into two groups, Group A received *Sthanik Abhyanga* with *Sthanik Patra Pinda Swedana* and Group B *Sthanik Abhyanga* with *Sthanik Parisheka* for 7 days. With help of assessment tools and gradation of symptoms, the findings of research work were statistically analysed. **Results:** Results of this study shows that both the study group were effective in relieving the symptoms of *Avabahuka*, *Sthanik Patra Pinda Swedana* was found statistically significant in comparison with, *Sthanik Parisheka*. **Discussion:** Two group of *Swedana Karma*, showed recovery from the symptoms of *Avabahuka* efficiently. This study shows that, *Patra Pinda Swedana* provide better result in comparison with *Sthanik Parisheka*. Hence it can be said that *Patra Pinda Swedana* has its own effect also in relieving *Avabahuka*.

**Key words:** *Avabahuka*, *Pinda Sweda*, *Parisheka*, *Vata Vyadhi*, *Frozen Shoulder*.

## INTRODUCTION

The main goal of *Panchakarma* therapy is to nourish the tissues and get rid of accumulated toxins of the body. It helps in rejuvenating the tissues and stopping the aging process becomes quite simple. *Swedana Karma* increases the permeability of capillary and bringing the morbidities into an extracellular fluid by

dilating and clearing the channels of the body. This keeps the person healthy in old age and allows them to use their experience to benefit society without suffering from physical or mental degeneration.

Among the *Panchakarma*, *Snehana-Swedana Karma* is a crucial *Chikitsa* for *Vata-Kaphaj Roga*. The shoulders, neck, face, and chest become well-maintained by *Swedana*. Thus, *Swedana* contributes to the shoulder muscles and improve the circulation of this area.

Within the category of illnesses, *Vata Vyadhies* have been considered significant by our *Acharyas*. These *Vata Vyadhies* have been listed under the *Ashta Mahagadas*.<sup>[1]</sup> *Avabahuka* is also known as *Vataja Nanatmaja Vyadhi*. *Avabahuka*, a term coined by *Acharya Sushruta* is a disease of *Skandha/Amsa Sandhi* (shoulder joint). Human body has six parts (*Shadanga*) and *Shakha* (upper limb and lower limb) is one among them where as *Skandha* is the root of *Shakha*.<sup>[2]</sup> *Acharya Charaka* described *Baahushosha* (*Avabahuka*)

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under eighty type of *Vatavyadhi*. Acharya Sushruta considered "Avabahuka" as *Vatavyadhi*. He described cause of *Avabahuka* is "Amsadeshasthitovayu Shoshayitvam Amsabandhanam, which means aggravated *Vata Dosha* cause "Shosha of Amsabandhan" in and around the shoulder, *Shiracha Aakunchaya* which means constriction of vessels.<sup>[3]</sup> *Ashtanga Sangraha*<sup>[4]</sup> and *Ashtanga Hridayam*<sup>[5]</sup> described *Avabahuka* as "Amsamulasthitovayu Sira Sankochaya" which means the condition where aggravated *Vata* gets lodged at the root of shoulder joint and cause vasoconstriction. In *Madhukosh Teeka of Madhav Nidana* it is described as *Vata- Kapha Pradhan Vyadhi* and two conditions of disease has been mentioned *Amsashosha* and *Avabahuka*.<sup>[6]</sup> *Amsa Sosh*a might be thought of as the initial stage of the sickness where *Sleshaka Kapha* at *Amsa Sandhi* is lost or becomes dry while during the *Avabahuka* stage, symptoms such as restricted motions and *Shoola* during movement arise from the loss of *Shleshaka Kapha*. In *Charaka Samhita Sutra Sthana* and *Chikitsa Sthana Bahushosha* and *Bahugata Vata* respectively has been mentioned.<sup>[7]</sup> In *Chakradutta Bahushosha* and *Avabahuka* has been mentioned in *Vatavyadhi Chikitsa* Some experts claim that it is a *Vata Kapha Pradhana Vyadhi*.<sup>[8]</sup> In modern aspect the term "Frozen shoulder" was first introduced by CODMAN in 1934.<sup>[9]</sup> He described a painful shoulder condition of insidious onset that was associated with stiffness and difficulty in sleeping on the affected side. Frozen shoulder is a common disability but self-limiting condition and occurs when the connective tissue enclosing the joint becomes thickened and tight. It is also known as Adhesive capsulitis (inflammation of the capsule tissue surrounding the shoulder joint causing pain and restricted movement).<sup>[10]</sup>

Typically, there are three phases in frozen shoulder progression freezing, frozen and thawing. The prevalence of frozen shoulder is 2-5% in the general population of India. The association is 2-4 times higher in patients with diabetes mainly in the age group of 35-65 but the issue can occur in the younger people who bare and get involved in overhead motions in their sports activities like tennis, basketball and volley ball

other predisposing factors include rheumatic disease (gout, rheumatoid arthritis) progression recent shoulder surgery, thyroid disorders etc.

Acharya Charaka very clearly states that the *Swedana Karma* is the procedure which relieves, *Stambha* (stiffness), *Gourava* and *Sheetata*.<sup>[11]</sup> He mentioned the *Snehana* and *Swedana* as the line of treatment for the *Vata* disorders. *Patra Pottali Pinda Sweda (Ela Kizhi)* refers to induction of perspiration by using heated *Pottali* (bolus) of specific herbal leaves. It falls into the category of *Snigdha Sweda*. It is also called *Sanker Sweda* comes under thirteen *Sagni Sweda*.<sup>[12]</sup> *Parisheka* is a type of *Swedana*. It comes under the category of *Drava Swedana*.<sup>[13]</sup> It is unique procedure of pouring warm *Kwatha*, medicated oil, *Dhanyamala*, milk or medicated ghee on the body.

## AIM AND OBJECTIVES

1. To evaluate the effect of *Sthanik Patra Pinda Swedana* in *Avabahuka* (Frozen shoulder).
2. To evaluate the effect of *Sthanik Parisheka* in *Avabahuka* (Frozen shoulder).
3. To compare the effect of *Sthanik Patra Pinda Swedana* and *Sthanik Parisheka* in *Avabahuka* (Frozen shoulder).

## MATERIALS AND METHODS

### Selection of patient

Patients with classical features of *Avabahuka* were selected randomly from OPD and IPD of Patanjali Ayurvedic Hospital, Haridwar. It is a clinical study with pre and post-test design where in a minimum of 40 patients suffering from *Avabahuka* were selected irrespective of their gender, caste, creed or occupation. Patients were divided randomly into two groups each comprising of 20 patient's each on the basis of inclusion and exclusion criteria with detailed history and physical examination and other necessary investigations.

### Method of data collection

- a. Patients who were fulfilling the criteria for diagnosis and inclusion were included.

- b. A clinical study of patients attending the OPD was made and patients fulfilling the criteria of diagnosis as per the patient case format were selected for the study.
- c. Clinical evaluation of patients was done by collection of data through information obtained by history, physical examinations and routine blood investigations.
- d. Review of literature was conducted from books, Authentic Research Journals, Websites and Digital Publications etc.

#### Inclusion Criteria

1. Age 18 - 70 years, either sex.
2. Patient fit for *Patra Pinda Swedana* and *Parisheka*.
3. Patient with classical features of *Avabahuka*.
4. Subjects with chronicity of disease pertaining from 3 months to 3 years
5. Patient with radiological findings of Frozen Shoulder.
6. Post traumatic shoulder injuries.
7. Shoulder joint arthritis.

#### Exclusion Criteria

1. Age less than 18 and more than 70 years, either sex.
2. Patient who are unfit for *Patra Pinda Swedana* and *Parisheka*.
3. Auto immune disorder like SLE, RA etc.
4. Respiratory disorders like bronchial asthma, Allergic bronchitis etc.
5. Uncontrolled metabolic disorders like Diabetes mellitus.
6. Pregnant and lactating mothers.
7. Critical illness like cardiac disease, carcinoma, tuberculosis, HIV, neurologica

#### Assessment Criteria

Improvement of signs and symptoms was assessed with suitable scorings. Assessment was done on

subjective and objective parameters of *Avabahuka* and scoring was done before and after treatment.

#### Subjective Parameters

- a. *Sandhi Shoola* (joint pain).
- b. *Sandhi Shosha* (wasting of muscles).
- c. *Sandhi Graha* (stiffness of joint).

#### Objective Parameters

- a. Localized swelling on palpitation,
- b. Tenderness
- c. Movement restricted.

#### 1. Grading of *Amsa Shool* (Shoulder Joint Pain)

Scale		Score
No Pain	Pain Free	0
Minor Pain	Very Mild	1
	Discomforting	2
	Tolerable	3
Moderate Pain	Distressing	4
	Very Distressing	5
	Intense	6
Severe Pain	Very Intense	7
	Utterible Horrible	8
	Excruciating Unbearable	9
	Unimaginable, Unspakable	10

#### 2. Grading of *Amsa Sandhi Graha* (Shoulder Joint Stiffness)

Scale		Score
No stiffness		0
Mild Stiffness and difficulty in moving the joints without support		1

Moderate Stiffness and difficulty in moving the joints with support	2
Stiffness relieved by medication	3
Severe Stiffness and unable to move the joints	4

### 3. Grading of Radiating Pain

Scale	Score
No radiation of pain	0
Pain at shoulder joint	1
Pain radiates upto elbow joint	2
Pain radiates upto forearm	3
Pain radiates upto hand and fingers	4

### 4. Grading of restricted movement of shoulder joint

Scale	Score
Can do work unaffectedly	0
Can do strenuous work with difficulty	1
Can do daily work with great difficulty	2
Can do any work	3

### 5. Grading of Amsa Shotha (shoulder joint swelling)

Scale	Score
No swelling	0
Slight	1
Moderate	2
Bulging beyond joint margins	3

### 6. Grading of restricted movement of shoulder joint using goniometer study

Flexion	Score
160-180 degree	0

120-159 degree	1
80-119 degree	2
40-79 degree	3
0-39 degree	4

Adduction	Score
40-50 degree	0
30-39 degree	1
20-29 degree	2
10-19 degree	3
0-9 degree	4

Abduction	Score
160-180 degree	0
120-159 degree	1
80-119 degree	2
40-79 degree	3
0- 39 degree	4

Extension	Score
40-50 degree	0
30-39 degree	1
20-29 degree	2
10-19degree	3
0- 9degree	4

External Rotation	Score
70-90 degree	0



50-69 degree	1
30-49 degree	2
0-29 degree	3

Internal Rotation	Score
70-90 degree	0
50-69 degree	1
30-49 degree	2
0-29 degree	3

### Research Design

Selected 40 patients of Avabahuka (Frozen shoulder) were randomly divided into two groups as, Group A and Group B.

**Group A** - Sthanik Abhyanga followed by Sthanik Patra Pinda Swedana

Each patient in this group was subjected to, Sthanik Abhyanga with Mahamasha Taila followed by Sthanik Patra Pinda Swedana.

**Timing** - 30 -40 min.

**Duration** - Up to 7 days

**Matra** - 2 Pottali

**Group B** - Sthanik Abhyanga followed by Sthanik Parisheka with Dashmoolaadi Kwatha

Each patient in this group was subjected to with Sthanik Abhyanga with Mahamasha Taila followed by Sthanik Parisheka with Dashmoolaadi Kwatha.

**Timing** - 30 -40min.

**Duration** - Up to 7 days

**Matra** - 3 litre Dashmoolaadi Kwatha

**Procedure:** The whole procedure was under three steps, Purva, Pradhana and Pashchat Karma.

### For Sthanik Patra Pinda Swedana

#### Preparation of Patra Pottali<sup>[14]</sup>

Fresh leaves of the plant Arka, Eranda, Nirgundi, Shigru, Dhatura and Chinchu were first cut into small pieces and then fried on a pan added with Mahamasha Taila till the mixture assumes reddish color. In this Pottali we added some Vata-Kaphanashak Churnas like Devdaru, Kustha, Rasna, Satpushpa, Sindhav Lavana, grated coconut powder and two pieces of lemon. Then this mixture was divided into two pieces of clothes and made into boluses. Average weight for a standard Pottali was taken 300gm approx.

#### Purva Karma

Patients were instructed not to suppress the natural urges and go through the normal routines. Patients were intimated, not to take any food immediately before taking Swedana Karma. Then patients were taken to a comfortable room, devoid of dust, extreme breeze and sunlight. Bahya Snehana in the form of Sthanik Abhyanga with Mahamasha Taila was done for 10-15 min in affected shoulder joint. Sthanik Abhyanga done in both supine and prone position with all techniques.

#### Pradhana Karma

Patient was made to lie down on the table in supine position with legs straight and then two Pottalies were kept in hot Mahamasha Taila. One of the two Pindas was used for massage and the other was kept in the pot over a low flame. Before beginning the procedure, bolus was taken from the right hand and the left hand's outer surface was used to measure the heat intensity. The bolus that was kept over the fire was used over the affected shoulder joint as soon as the current bolus lost its heat. The patient's left hand was slightly massaged over the area in the direction of the bolus and the process was run continuously for 30-40 minutes till the Samyaka Swedana Lakshanas were seen.

#### Pashchat Karma

After completion of the process applied Rasnadi Churna on the vertex of the patient and advised the patient to take rest in a non-windy room with his body

covered using a thick blanket for about 1 hour after the rest advised the patient to perform bath using warm water. The *Pottali* was used for 3 days and after 3 days process was continuing with fresh *Pottali*.

#### For *Sthanik Parisheka*

#### Preparation of *Dashmoolaadi Kwatha (Dashmool, Masha, Bala)*<sup>[15]</sup>

Before making *Dashmoolaadi Kwatha* all the drugs were soaked the whole night before. The total quantity of decoction drugs was 500 gm. In which 1. *Bilwa* 2. *Agnimantha* 3. *Syonaka* 4. *Patala* 5. *Gambhari* 6. *Salparni* 7. *Prushnaparni* 8. *Bruhati* 9. *Kantakari* 10. *Gokshura* 11. *Bala* 12. *Masha* and taken all drugs in equal quantity 42 gm approx each. The above drugs were made in to small pieces (*Yavakuta*) and then *Kwatha* was prepared by boiling *Yavakuta* powder with 8 litres (16\* *Guna Jala* of total *Kwatha* drugs) of water and reduce into one fourth (1/4) of the total quantity of water. The remaining quantity of *Kwatha* was 2 lit.

#### *Purvakarma*

Patient was made to sit /lie down on the *Dhroni*, and *Sthanik Abhyanga* With *Mahamasha Taila* was done to the afflicted shoulder joint. *Sthanik Abhyanga* (with exceptions which may need mild to moderate massage) was done for 10-15 minutes in both supine and prone position with all techniques. Gauze was tied around the head above the eyebrows and Ear plugged with gauze.

#### *Pradhan Karma*

The *Dashmoolaadi Kwatha* was filled in the *Neti Pot* a modified form of *Varshulika*. *Sthanik Parisheka* with *Dashmoolaadi Kwatha* was gradually conduct by stream poured on the afflicted shoulder joint with simultaneous massage respectively. The *Dashmooladi Kwatha* was poured 12 *Angul* of height. *Sthanik Parisheka* was done for a time period of 30-40 minutes. *Sthanik Parisheka* was done until the *Samyaka Swedana Lakshanas* were seen.

#### *Paschat Karma*

After the completion of *Parisheka* body was cleaned with soft towel. Ear plug and gauze were removed and *Rasnadi Churna* was applied to the head. Patient was advised to relax for a short while. After that take *Snana* (bath) with warm water.

#### Adjuvant therapy

*Sthanik Abhyanga* with *Mahamasha Taila*<sup>[16]</sup> was done as adjuvant therapy in Both groups.

#### Investigations

- X-ray shoulder joint AP and Lateral view.
- CBC with ESR.
- RBS
- CRP
- Serum uric acid.
- RA

#### Selected Drugs

1. Medicated *Vatahara* herbs were for *Potali*, *Patras* of *Arka*, *Erand*, *Nirgundi*, *Shigru*, *Chincha* and *Dhatuira*. *Churnas* like *Devdaru*, *Kustha*, *Rasna*, *Satpushpa*, *Saidhav Lavana*.
2. 2 Lemon
3. *Mahamasha Taila* was used for *Sthanik Abhyanga*.
4. *Dashmoolaadi Kwatha (Dhashmool Masha, Bala Kwatha)*
5. *Mahamasha Taila* - A dark golden coloured oil with pleasant aroma. *Mahamasha Taila* is a classical Ayurvedic herbal oil well known for its therapeutics benefits.

#### Composition of drug

*Sthanik Patra Pinda Swedana* by *Vata-Kaphahar Patras* of medicated herbs and oil (*Mahamasha oil*). *Patras* like *Arka*, *Erand*, *Nirgundi*, *Shigru*, *Chincha* and *Dhatuira* were collected from Patanjali Research Herbal Garden and local area. *Churnas* like (*Devdaru*, *Kustha*, *Rasna*, *Satpushpa*, *Saidhav Lavana*, *Devdaru*, *Kustha*, *Rasna*, *Satpushpa*, *Saidhav Lavana Parisheka* by *Dashmoolaadi Kwatha* drugs were prepared at Divya Pharmacy in Haridwar.

**Dose of medicine**

- For *Sthanik Patra Pinda Swedana* - Fresh leaves of *Vata-Kaphahara* drugs (*Arka, Eranda, Nirgundi, Shigru, Dhatura* and *Chincha*) - total 500 gm
- Saindhav Lavana* - 5 gm
- Grated coconut - 50gm
- Lemon - 2 (medium size)
- Mahamasha Taila* - as per required
- Churnas like Rasna, Devdaru, Shatpushpa, Kustha* - 5 gm each
- Cotton cloth (45cm X 45cm) - 2 pieces
- Tag - 2
- Vessels -2 (for frying leaves and heating *Pottali*)
- For *Parisheka* - For 2 lit. *Dashmoolaadi Kwatha (Masha, Bala, Dashmoola)*
- Vessel 2-3 lit.
- Rasanadi Churna* - 5gm
- Mahamasha Oil* for *Abhyanga* - As per required
- Parisheka Yanta* - Apparatus was carrying out for *Sthanik Parisheka* was *Neti Pot* a modified form of *Varshuulika Yantra* - 2
- Towel - 2

**OBSERVATIONS AND RESULTS**

**Table 1: Showing effect of therapy in Group A.**

Group A	Mean		Median		SD		Wilcoxon W	P-Value	% Effect	Result
	BT	AT	BT	AT	BT	AT				
<i>Sandhishoola</i>	4.20	1.10	3.50	1.00	2.17	0.97	-3.946 <sup>b</sup>	0.000795	73.81	Sig
<i>Sandhi Sotha</i>	1.80	0.40	2.00	0.00	0.83	0.60	-3.938 <sup>b</sup>	0.000821	77.78	Sig
<i>Sandhigraha</i>	2.65	0.90	2.50	1.00	1.27	0.72	-3.992 <sup>b</sup>	0.000656	66.04	Sig

Radiating of pain	2.85	0.80	3.00	1.00	0.75	0.62	-4.128 <sup>b</sup>	0.000365	71.93	Sig
Restricted movement of shoulder joint	2.00	0.40	2.00	0.00	0.79	0.60	-4.053 <sup>b</sup>	0.000506	80.00	Sig
Flexion	2.25	0.90	2.00	1.00	0.91	0.79	-4.072 <sup>b</sup>	0.000467	60.00	Sig
Extension	1.85	0.45	2.00	0.00	0.88	0.51	-3.938 <sup>b</sup>	0.000821	75.68	Sig
Adduction	2.25	0.60	2.00	0.50	0.79	0.68	-4.005 <sup>b</sup>	0.000620	73.33	Sig
Abduction	2.20	0.70	2.00	1.00	0.62	0.73	-3.919 <sup>b</sup>	0.000888	68.18	Sig
External rotation	1.95	0.45	2.00	0.00	0.76	0.51	-3.912 <sup>b</sup>	0.000916	76.92	Sig
Internal rotation	2.10	0.55	2.00	0.50	0.72	0.60	-4.041 <sup>b</sup>	0.000531	73.81	Sig

Since observations are on ordinal scale (gradations), we have used Wilcoxon Signed Rank Test to test efficacy in Group A. From above table, we can observe that P-Value for all parameters is less than 0.05. Hence, we can conclude that effect observed in all parameters in Group A is significant.

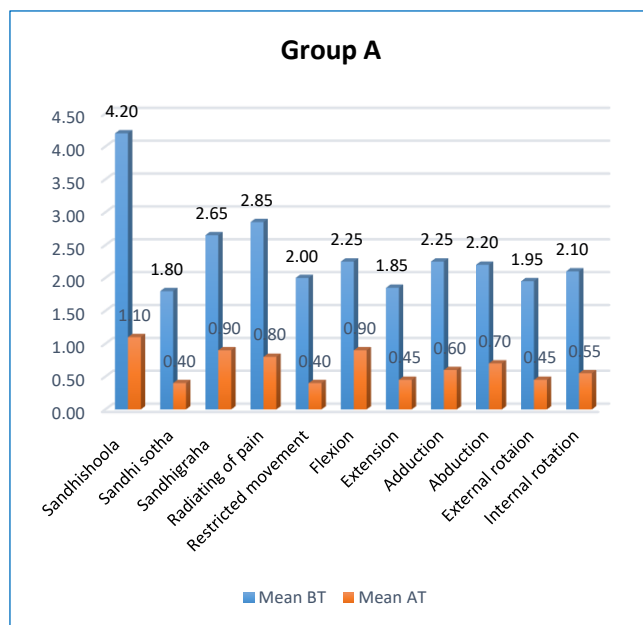




Table 2: Showing effect of therapy in Group B.

Group B	Mean		Median		SD		Wilcoxon W	P-Value	% Effect	Result
	BT	AT	BT	AT	BT	AT				
Sandhishoola	5.20	2.15	5.50	2.00	3.17	1.57	-3.943 <sup>b</sup>	0.000806	58.65	Sig
Sandhi Sotha	1.90	0.60	2.00	0.00	0.85	0.75	-4.099 <sup>b</sup>	0.000415	68.42	Sig
Sandhigraha	3.10	1.10	3.00	1.00	0.91	0.64	-4.029 <sup>b</sup>	0.000561	64.52	Sig
Radiating of pain	2.60	0.85	3.00	1.00	0.94	0.75	-4.018 <sup>b</sup>	0.000587	67.31	Sig
Restricted movement of shoulder joint	2.15	0.65	2.00	1.00	0.99	0.49	-3.825 <sup>b</sup>	0.001307	69.77	Sig
Flexion	2.25	0.75	2.00	1.00	0.79	0.79	-4.028 <sup>b</sup>	0.000562	66.67	Sig
Extension	1.90	0.60	2.00	0.00	0.85	0.75	-3.841 <sup>b</sup>	0.001223	68.42	Sig
Adduction	2.20	0.85	2.00	1.00	0.62	0.81	-3.834 <sup>b</sup>	0.001260	61.36	Sig
Abduction	2.15	0.70	2.00	1.00	0.93	0.73	-3.804 <sup>b</sup>	0.001422	67.44	Sig
External rotaion	1.85	0.65	2.00	1.00	0.81	0.67	-3.874 <sup>b</sup>	0.001071	64.86	Sig
Internal rotation	1.85	0.60	2.00	0.50	0.67	0.68	-3.987 <sup>b</sup>	0.000668	67.57	Sig

Since observations are on ordinal scale (gradations), we have used Wilcoxon Signed Rank Test to test efficacy in Group B. From above table, we can observe that P-Value for all parameters is less than 0.05. Hence, we can conclude that effect observed in all parameters in Group B is significant.

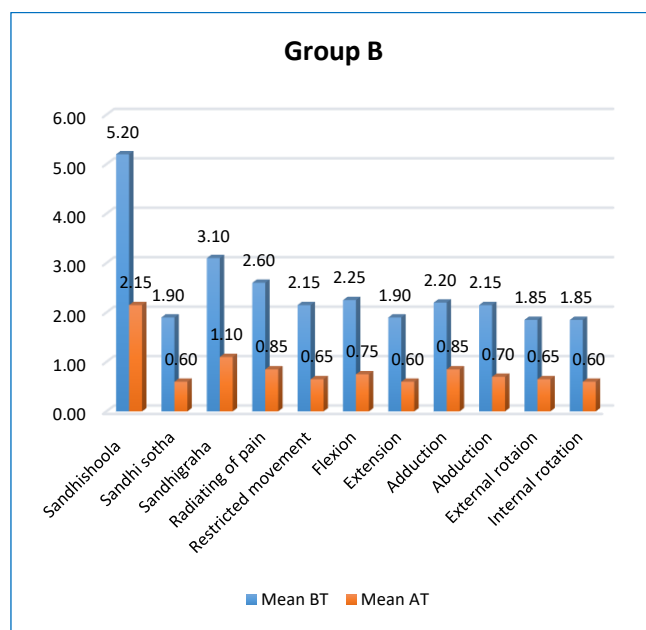


Table 3: Showing comparison between Group A and Group B

Variable	Group	N	Mean Rank	Sum of Ranks	Mann-Whitney U	P
Sandhishoola	Group A	20	21.18	423.50	186.500	0.007
	Group B	20	19.83	396.50		
	Total	40				
Sandhi Sotha	Group A	20	21.65	433.00	177.000	0.005
	Group B	20	19.35	387.00		
	Total	40				
Sandhigraha	Group A	20	18.50	370.00	160.000	0.246
	Group B	20	22.50	450.00		
	Total	40				
Radiating of pain	Group A	20	23.08	461.50	148.500	0.040
	Group B	20	17.93	358.50		
	Total	40				
Restricted movement of shoulder joint	Group A	20	21.10	422.00	188.000	0.007
	Group B	20	19.90	398.00		
	Total	40				
Flexion	Group A	20	19.33	386.50	176.500	0.457
	Group B	20	21.68	433.50		
	Total	40				

Extension	Group A	20	21.50	430.00	180.000	0.025
	Group B	20	19.50	390.00		
	Total	40				
Adduction	Group A	20	22.40	448.00	162.000	0.026
	Group B	20	18.60	372.00		
	Total	40				
Abduction	Group A	20	20.95	419.00	191.000	0.791
	Group B	20	20.05	401.00		
	Total	40				
External rotaion	Group A	20	22.50	450.00	160.000	0.023
	Group B	20	18.50	370.00		
	Total	40				
Internal rotation	Group A	20	23.23	464.50	145.500	0.009
	Group B	20	17.78	355.50		
	Total	40				

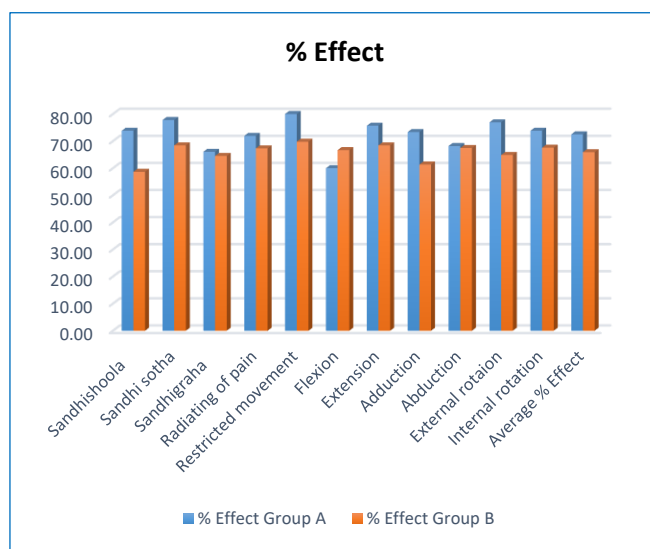
Mann Whitney U Test is carried out for comparison between Group A and Group B. From above table, we can observe that P-Value for all parameters is less than 0.05. Hence, we can conclude that, there is significant difference between Group A and Group B.

Further we can observe that, mean rank for Group A is greater than Group B. Hence, we can conclude that, effect observed in Group A is better than Group B.

**Table 4: Showing Mean rank score of Group A and Group B.**

Parameters	% Effect	
	Group A	Group B
Sandhishoola	73.81	58.65
Sandhi Sotha	77.78	68.42
Sandhigraha	66.04	64.52
Radiating of pain	71.93	67.31
Restricted movement of shoulder joint	80.00	69.77
Flexion	60.00	66.67
Extension	75.68	68.42
Adduction	73.33	61.36

Abduction	68.18	67.44
External rotation	76.92	64.86
Internal rotation	73.81	67.57
Average % Effect	72.50	65.91



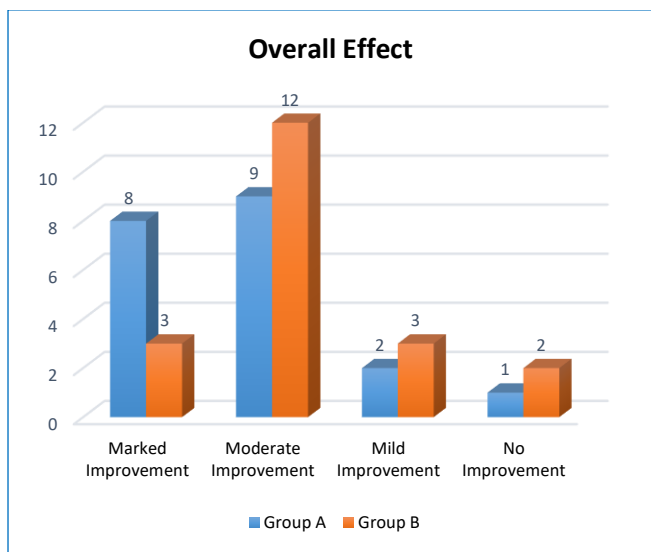
**Table 4: Showing overall effect of therapy.**

Overall Effect	Group A		Group B	
	N	%	N	%
Marked Improvement	8	40.00%	3	15.00%
Moderate Improvement	9	45.00%	12	60.00%
Mild Improvement	2	10.00%	3	15.00%
No Improvement	1	5.00%	2	10.00%
Total	20	100.00%	20	100.00%

Group A - given moderate improvement with 45% followed by marked improvement of 40% and mild improvement 10%. There was 5% of no improvement after completion the treatment.

Group B - given moderate improvement of 60% followed by marked improvement of 15% and mild

improvement 15%. There was 10% of no change after the completion of treatment.



## DISCUSSION

Discussion is an important and combined part of the research. Any Research study without discussion regarding its nature, utility and value is said to be incomplete. The clinical observations will be communicated by the researcher with textual references, and each observation will have a good justification. This section gives readers an interpretation of the results and highlights the importance of the discoveries.

### Abhyanga (Bahya Snehana)

Karmas of Abhyanga are Snehana, Kledakara, Jarahara, Pustikara, Kapha Vata Nirodhan. Sneha which is used for Abhyanga, reaches to Mamsa, Meda, Asthi, Majja etc. Dhatu and provides nourishment to them. Massage gives strength to the muscles, it relaxes the stiff muscles, release, pain, it increases the blood flow and also metabolism. According to Acharya Dalhana's detailed explanation, the oil used in the Abhyanga method can penetrate up to the various Dhatus.

### Swedana

Best treatment for vitiated Vata and Kapha dominant diseases. Swedana is done to liquify the vitiated Doshas which are spread throughout the body. It is not recommended in disorders of aggravated Pitta but

Swedana is recommended in Pittasanshlist Vata-Kaphaj disease. Proper Sudation administered after oleation therapy pacifies the Vata. By application of oil and then sudation therapy, the dry stick becomes soft and elastic. Then what will be its effect in alive human being. Generally, Guru, Teekshna and Ushna Dravyas induce sweating. Drugs with the Sara, Snigdha, Ruksha, Sukshma, Drava and Sthira Gunas are of Sweda. The process which relieves Stambhaghata, Gouravaghata, Sheethaghata Swedakaraka, Vata Shaman, Dosha Draveekarana, Gatra Vinamana, Agnideepana, Twak Mardava and Prasadana, Bhakthasradha, Nidra-Tandra Nasha, Sandhicheshatakara, Dosha Shodhana.

### Mode of action of Patra Pinda Swedana

Sroto Shuddhi And Ama Pachan



Relieve in Sthambhagna (Stiffness), Gauravghna (Relieve in Heaviness)



Due to Ushna Quality



Shitaghna



Swedakaraka (Promote Sweating)



Impurities of Body Come Out



Due to Usna and Tikshna Guna



Increase Metabolic Rate in The Body



Dilate the Capillaries (Vasodilation)



Increase Circulation



Enhance Elimination of Waste Products



More Absorption of Sneha through Skin and nourish the tissue

Due to *Vata Kapha Hara* properties of Drugs Action with *Swedana* Stimulate Nerve, Muscles (Promotes its Renovation) and Hypo Analgesic Effect by Diverted Stimuli.

#### Mode of action of Parisheka

*Swedana* relieves *Ruk, Stambha, Shotha, Toda* symptoms of *Vata* and soften the body parts. *Dharvasweda* normalizes the vitiated *Vata Dosha* and helps in *Samprapti Vighatana* of *Shoola*. By *Swedana*, due to arterial dilatation the body parts get more blood circulation, so acts as *Stambhaghna* and *Gouravaghna*.

Stimulation Receptor



Stimulation Hypothalamus Cause



Sympathetic stimulation



Cause adrenaline secretion



Cause adipose Liposis



Generation of sweat

- Drugs used in *Patra Potali Sweda* and *Parisheka* were having *Vata-Kaphahara* and *Sothahara* properties.
- *Mahamasha Taila* is *Balya, Brihana, Dhatu Vardhaka* and *Vatahara* in property and *Avabahuka* is a disorder of shoulder joint in which *Sira* gets affected due to increase in *Khara Guna* of *Vata* which results in restricted movement of shoulder joint. It has antiinflammatory properties and provides nourishment to *Sira, Snayu, Asthi, Sandhi* and *Kandara*. By pacifying *Shleshma-Vata* and nourishment of local musculature of shoulder joint it helps resolve the etiopathogenesis.

#### CONCLUSION

*Sthanik Abhyanga* with *Sthanik Patra Pinda Swedana* and *Sthanik Parisheka* with *Dashmoolaadi Kwatha* at

affected shoulder joint were safe and effective in *Avabahuka*. There were no adverse effects found in the both groups. Statistically significant changes observed in the symptoms pain, stiffness, swelling, range of movements, Restricted Movement of joints, flexion, extension, adduction, abduction, external and internal rotation in both the groups. From the present study it may be concluded *Avabahuka* was gradual in onset. Right Shoulder joint involvement was maximum compared to left shoulder joints. In this study *Vata Pittaj Prakriti* persons were found more prone to *Avabahuka*. *Avabahuka* was commonly found in patients having *Adhyasana* dietary habit, in female patients which were mostly housewives and due to *Vata Prakopa* pain causes the disturbed sleep. *Avabahuka* is commonly found in patients having vegetarian diet with dominant of *Katu Rasa*. Excessive work with affected hand and season was reported as aggravating factors for *Avabahuka* in this study. *Patra Pinda Swedana* provides better results as it was also more effective in reducing symptoms of *Avabahuka* like *Sandhi Shoola, Sandhigraha, Sandhi Sotha*. In the present study it can be concluded that overall *Patra Pinda Swedana* can be better choice of treatment in the management of *Avabahuka*.

#### REFERENCES

1. Sushruta: Sushruta Samhita, edited with Ayurvedatvatvasandeeepika Hindi commentary by Shastri Kaviraj Ambika dutta. Varanasi India: Chaukhambha Sanskrit Sansthan; part-12014; Shareera Sthana 5/3, 54
2. Charaka Samhita Ayurveda deepika commentary by Chakrapani Dutta. Dr. Laxmidhar Dwivedi, part-2, Indiya Sthana 9/8-9, Choukhamba krishnadas Academy, Varanasi, page no 1234, fourth edition 2017
3. Sushruta: Sushruta Samhita, edited with Ayurvedatvatvasandeeepika Hindi commentary by Shastri kaviraj Ambika Dutta. Varanasi India: Chaukhambha Sanskrit Sansthan; 2014; Nidan sthan 1/82;304.
4. Vagabhatta Vridha: Ashtanga Sangraha with hindi commentary vol.1 Sutra- Shareer and Nidan Sthanas by Kaviraj Atrideva Gupta, Vidyalankar Bhisagratna foreword by Rajvaidhya Pandit Sri Nandakishor Sharma (Bhisagaacharya) Chaukhambha Krishanadas Acadmy, Varanasi INDIA: Nidana Sthana 402/45.

5. Vagabhatta: Ashtanga Hridayam, edited by dr. Brahmanand Tripathi, hindi commentary. New Delhi India:Chaukhamba publications: vol-2 2017; Nidhana Sthana 15/43:140.
6. Madhavakar: Madhava Nidana, edited with Madhukosha Sanskrit commentary by Vijayrakshita and Dutta Shrikantha. Varanasi India: Chaukhamba Sanskrita sansthana; part-1;1996;22/64:443.
7. Charaka-Charaka Samhita Agnivesh, edited with vidyotini Hindi commentary by shastri Pandit Kashinatha and Chaturvedi Gorakhanatha. Varanasi India: Chaukhamba Bharati Academy; part-1; 1992; Sutra Sthana 20/11:399.
8. Chakrapani: Chakradutta, edited with Bavatha sandipani Bhashatika by Tripathi jagdishwar Prasada. Varanasi India: Chaukhamba Sanskrit series office Vidyavilasa press; 1947; Vatavyadhi Chikitsa 100.
9. Laubscher PH, Rosch TG. FROZEN shoulder: A review. S.A orthopaedic journal spring 2009 a clinical article. Available from: SA orthopaedic journal spring 2009. Accessed on April 22<sup>nd</sup>, 2017.
10. Uppal Harpal singh, Evans Jonathan peter, smith Christopher. Frozen shoulder: A systemic review of therapeutic options. World J Ortho., 2015 mar 18; 6(2): 263-268. Published online 2015 mar 18 Doi:10.5312/wjo.v6.i2.263.PMCID:PMC4363808. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles> Accessed on 22/4/2017.
11. Charaka Samhita. Ayurveda Deepika commentary by Chakrapani dutta. Dr. Laxmidhar Dwivedi, Part-1, Sutra Sthana 22/11, Chaukhamba Krishnadas Academy, Varanasi, Page no 414, Fourth edition, 2017.
12. Charaka Samhita. Ayurveda Deepika commentary by Chakrapani dutta. Dr. Laxmidhar Dwivedi, Part-1, Sutra Sthana 14/41, Chaukhamba Krishnadas Academy, Varanasi, Page no 318, Fourth edition, 2017 9.
13. Charaka: Charaka samhita of Agnivesh, edited with Vidyotini Hindi commentary bySshastri Pandit Kashinatha Sastri and Gorakhanatha Chaturvedi. Varanasi India: Chakhumba Bharati Varanasi India: Chaukhamba Bharati Academy; part-1; 1992; Sutra Sthana cheptr 14:44(p.90).
14. Principle and Practice of Panchakarma, Dr. Vasant C. Patil, Chaukhamba Publications, New Delhi Page no 213.
15. Chakrapanidutta, Chakradutta Vatavyadhi chikitsa rogadohikar 22/25 vatavyadhi chikitsa.
16. Bhaishajya Ratnavali, Chapter 26 /543 – 550, (Chakradutta Vatavyadhi Rogaadhikar).

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