



# The Clinical Study to Evaluate the Effect of Dashamoola Bala Masha Taila Nasya and Rasnadi Guggulu in the Management of Apabahuka with special reference to Frozen Shoulder

Dr.Radhika Pungaliya<sub>1</sub>, Dr.S.S.Kalyani<sub>2</sub>, Dr.Sunilkumar M. Chabanur<sub>3</sub>

1. Post Graduate Scholar,

2. Professor Department of PG Studies in Kayachikitsa

3. Professor and HOD, Department of PG Studies in Kayachikitsa,

BVVS Ayurved Medical College and Hospital, Bagalkot

## ABSTRACT

*Apabahuka* is one among the *Vataja Nanatmaja Vyadhis* which affects the normal functioning of upper limbs there by affects the normal routine lifestyle of an individual. It is caused mainly by the *Vyana Vata* vitiation and gets *Sthana Samshraya* in the *Amsa Pradesha*. There it does the *Shoshana* of *Shleshaka Kapha, Mamsa, Sira, Snayu* leading to *Bahupraspanditaharatwam, Shoola and Stambha*. These clinical features closely resemble with painful stiffness and loss of motion of shoulder. *Dashamoola Bala Masha Taila Nasya* advised for 7 days combined with *Rasnadi Guggulu* internally for 30 days. After completion of treatment, significant improvement was observed in the parameters like *Bahu Shoola, Stambha* and Range of Movements. *Dashamoola Bala Masha Taila* mentioned in *Vangasena Vatavyadhiadhikara* acts as *Shoolagna, Tridoshagna, Shothagna and Brumhana*. The *Rasnadi Guggulu* mentioned in *Yogaratanakar Vatavyadhiadhikar* having *Ushna Virya* acts as *Deepana, Pachana Vatakaphanashaka, Shoolahara, Shothahara and Balya*. By these *Guna-Karmas* selected *Dravyas* can do the *Samprapti Vighatana* of *Apabahuka*.

**Key Words:** Apabahuka, *Vataja Nanatmaja Vyadhis*, Frozen Shoulder, *Shoolagna, Shothagna*

## INTRODUCTION

Most of the diseases are not life threatening but hamper day to day life of human. “Apabahuka” is one among such diseases. This condition affects the normal functioning of upper limbs there by it affects normal routine lifestyle of an individual. In contemporary medical science the condition Frozen shoulder seems to be very similar to Apabahuka.

The prevalence of Frozen shoulder in the general population is reported to be 2%, prevalence of 11% in unselected individuals with diabetes. Frozen shoulder may affect both shoulders, either simultaneously or sequentially, the frequency of bilateral Frozen shoulder is higher in subjects with diabetes than in those without diabetes. It occurs most frequently in 5<sup>th</sup> and 6<sup>th</sup> decades of life<sup>1</sup>.

Frozen Shoulder is an idiopathic condition which manifests clinically as shoulder pain with progressive restricted movement, both active and passive along with normal radiographic scans of glenohumeral joint<sup>2</sup>. It can affect activities like eating, dressing, personal hygiene and works, so life of the patient becomes miserable.

*Apabahuka* is one among the *Vataja Nanatmaja Vyadhis*<sup>3</sup>. Which affects the *Amsa Sandhi*. And does the *Shoshana* of *Shleshaka Kapha*, *Mamsa*, *Sira*, *Snayu* leading to *Bahupraspanditaharatwam* (restricted movement of affected shoulder), *Shoola* (pain), *Stambha* (stiffness)<sup>4</sup>. Here mainly *Asthivaha* and *Majjavaha Srotodusti* were observed. *Sandhis* are one of the types of *Marmas* and form a part of *Madhyamaroga Marga*<sup>5</sup>. Thus, involvement *Madhyamaroga Marga*, *Marma*, *Vata D osha* make the disease *Kastasadhya*.

Management of Frozen Shoulder is by Analgesics, local intra articular injections of corticosteroids in glenohumeral joint followed by physiotherapy and surgical intervention<sup>6</sup>. In *Ayurveda Acharayas* have mentioned the Specific line of treatment of *Apabahuka* are *Nasya*, *Uttarabhaktika Snehapana*, *Swedana*, *Shamanoushadhis*<sup>7,8</sup>.

*Nasya* is believed to strengthen *Skanda* and *Greeva*<sup>9</sup>, so for *Nasya Dashamoola Bala Masha Taila*<sup>10</sup> contains the *Dashamoola*, *Bala*, *Masha*, *Tilataila* which acts as *Shoolagna*, *Tridoshagna*, *Shothagna* and *Brumhana*. *Abhyantara Chikitsa* include medications in the form of *Churna*, *Kashaya*, *Guggulu Kalpa*, etc *Guggulu* is having *Srotoshodhaka*, *Vedanasthapaka*, *Shothahara*, *Rasayana* properties and proved to have anti-inflammatory and analgesic effect by various research works.

*Rasnadi Guggulu*<sup>11</sup> contains *Rasna*, *Guduchi*, *Eranda*, *Devadaru*, *Shunti* and *Guggulu* these drugs are having *Ushna Virya* acts as *Deepana*, *Pachana*, *Vatakaphanashaka*, *Shoolahara*, *Shothahara* and *Balya*. Helps for *Srotoshodhana* which increases *Rasa Rakta Samvahana* to affected joint.

## MATERIALS AND METHODS

**1) Literary Source:** The Literary data will be collected from Central library as well as *Kayachikitsa* departmental library of BVVS Ayurved Medical College and Hospital, Bagalkot. The data also collected from journals, periodicals, and other published works and even from internet source.

**2) Clinical Source:** Patients of *Apabahuka* (Frozen Shoulder) will be collected from OPD, IPD and Medical Camps conducted in BVVS Ayurved Medical College and Hospital, Bagalkot.

**3) Drug Source:** *Dashamoola Bala Masha Taila* and *Rasnadi Guggulu* will be purchased from GMP certified pharmacy

## SELECTION CRITERIA:

### DIAGNOSTIC CRITERIA

a) The diagnosis will be made based on Classical signs & symptoms of *Apabahuka* (Frozen Shoulder) such as

- *Bahupraspanditaharatwam* (Restricted movement of affected Shoulder)
- *Shoola* (Pain)
- *Stambha* (Stiffness)

### 2. Inclusion Criteria:

- Diagnosed patients of *Apabahuka* (Frozen Shoulder)
- Patients of either sex and the age group of 20 -60 years.
- Patients *Yogya* for *Nasya*.
- Patients with controlled Hypertension and Diabetes.

**3. Exclusion Criteria:**

- Fractures, dislocation, and traumatic injuries of Shoulder Joint.
- Patients suffering from any chronic systemic disorder
- Pregnancy and lactation

**METHOD OF COLLECTION OF DATA**

- **Study design:** Single arm open clinical study.
- **Sample size:** 40

**Treatment**

<i>Aushadhi</i>	<i>Matra</i>	<i>Sevana kala</i>	<i>Anupana</i>	<i>Kala</i>
<i>Dashamoola Bala</i>	8 Drops in each	Morning	–	1-7 days
<i>Masha Taila</i>	nostril			
<i>Rasnadi Guggulu</i>	500mg-BD	After food	<i>Sukoshnajala</i>	1-30 days

**Treatment duration** – 30 days

**Observation period** – 7<sup>th</sup> day, 31<sup>st</sup> day

**Follow up** – 40<sup>th</sup> day

**Total study duration** – 40 days

**Assessment criteria:** The result of the treatment will be assessed before & after the treatment, based upon Subjective and Objective Parameters.

**SUBJECTIVE PARAMETERS:****1. Shoola**

<i>SHOOLA</i>	<b>GRADE</b>
No pain	0
Mild pain and can-do strenuous work	1
Moderate pain and can-do minimum work	2
Severe pain and cannot do any work	3

**2. Stambha**

<i>STAMBHA</i>	<b>GRADE</b>
No stiffness	0
Mild and can lift without support	1
Moderate and can lift with support	2
Severe stiffness and unable to lift	3

**OBJECTIVE PARAMETERS:****b) Range of Movements of shoulder joint:****1. Flexion**

ANGLE	GRADE
161 <sup>0</sup> -180 <sup>0</sup>	0
141 <sup>0</sup> -160 <sup>0</sup>	1
121 <sup>0</sup> -140 <sup>0</sup>	2
<120 <sup>0</sup>	3

**2. Extension**

ANGLE	GRADE
51 <sup>0</sup> -60 <sup>0</sup>	0
41 <sup>0</sup> -50 <sup>0</sup>	1
31 <sup>0</sup> -40 <sup>0</sup>	2
<30 <sup>0</sup>	3

**2. Abduction**

ANGLE	GRADE
161 <sup>0</sup> -180 <sup>0</sup>	0
141 <sup>0</sup> -160 <sup>0</sup>	1
121 <sup>0</sup> -140 <sup>0</sup>	2
<120 <sup>0</sup>	3

**3. External Rotation**

ANGLE	GRADE
71 <sup>0</sup> -90 <sup>0</sup>	0
51 <sup>0</sup> -70 <sup>0</sup>	1
31 <sup>0</sup> -50 <sup>0</sup>	2
<30 <sup>0</sup>	3

**Statistical analysis:**

The collected data and observations were analyzed critically by Wilcoxon signed rank test.

**Overall clinical assessment of the trail:**

- 1. Good response** – 76-100% and more improvement in overall clinical parameters.
- 2. Moderate response** – 51-75% improvement in overall clinical parameters.
- 3. Mild response** – 26-50% improvement in overall clinical parameters.
- 4. No response** - less than 25%.

**OBSERVATIONS AND RESULT**

In the present study, majority of the patients were belonged to the age group of 40-60 years (62.5%); Majority of the patients were males (65%); (50%) of patients were literate; (37.5%) of patients were labors, (37.5%) of patients were housewives; 97.5% (39) patients were married; (35%) patients were from middle economic status; (57.5%) of patients were vegetarians, (42.5%) of patients were having habit of tea, (55%) of patients were having *Mandagni*; (57.5%) of patients were having *Madhyama Kostha*; (70%) of patients were having *Vatakaphaja Prakruti* (Constitution), (95%) patients were having *Madhyama Vyayama Shakti*.

In the present study, (100%) patients were having *Bahu Shoola*, (95%) were having *Bahu Stambha*, (90%) were having restricted Flexion, (95%) were having restricted Extension, (75%) were having restricted Abduction and (95%) were having restricted External and Internal rotations.

**Table: Statistical analysis of subjective parameters by Wilcoxon signed rank test**

Parameter BT-AT	Negative ranks			Positive ranks			Ties	Total	Z-Value	P-Value	Remarks
	N	MR	SR	N	MR	SR					
<i>Bahu Shoola</i> Rt	24	12.50	300.00	0	.00	.00	16	40	-4.899	.000	S
<i>Bahu Shoola</i> Lt	20	10.50	210.00	0	.00	.00	20	40	-4.379	.000	S
<i>Bahu Stambha</i> Rt	14	7.50	105.00	0	.00	.00	26	40	-3.742	.000	s
<i>Bahu Stambha</i> Lt	14	15.50	465.00	0	.00	.00	26	40	-3.742	.000	S
Flexion Rt	15	8.00	120.00	0	.00	.00	25	40	-3.873	.000	S
Flexion Lt	16	8.50	136.00	0	.00	.00	24	40	-4.000	.000	S
Extension Rt	19	10.00	190.00	0	.00	.00	21	40	-4.359	.000	S
Extension Lt	15	8.00	120.00	0	.00	.00	25	40	-3.873	.000	s
Abduction Rt	14	7.50	105.00	0	.00	.00	26	40	-3.742	.000	S
Abduction Lt	16	8.50	136.00	0	.00	.00	24	40	-4.000	.000	S
External rotation Rt	17	9.00	153.00	0	.00	.00	23	40	-4.123	.000	S
External rotation Lt	14	7.50	105.00	0	.00	.00	26	40	-3.742	.000	S
Internal rotation Rt	18	9.50	171.00	0	.00	.00	22	40	-4.243	.000	s
Internal rotation Lt	15	8.00	120.00	0	.00	.00	25	40	-3.873	.000	S

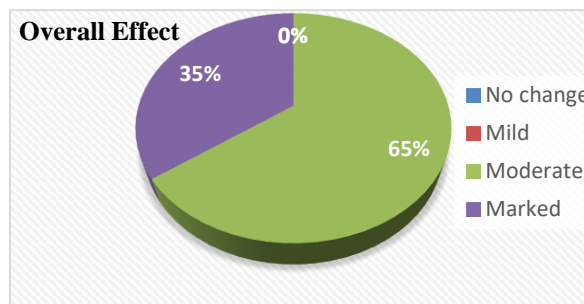
NOTE- N- Number of samples, MR- Mean ranks, SR- Sum of ranks, S-Significant, NS-Not Significant

**Overall response to the treatment:**

**Table: Distribution of overall response to the treatment:**

EFFECT OF TREATMENT		
Class	Grading	No of patients
0-25%	Poor response	0
26%-50%	Mild response	0
51% - 75%	Moderate response	26
76%-100%	Marked response	14

**Graph: Overall effect of Treatment in *Apabahuka***



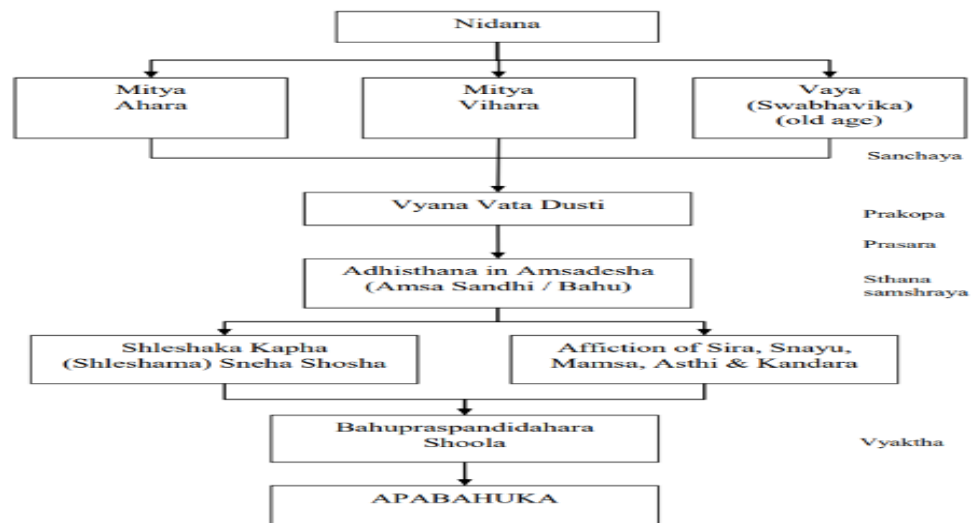
**DISCUSSION**

The basic principles of *Hetu* of *Apabahuka* have not been mentioned separately in *Brihatrayi* and *Laghutrayi*. Hence, general causative factors mentioned for *Vatavyadhi* or *Vata* vitiating factors are considered as etiological factors of *Apabahuka* as well. The following can be considered as the *Vishista Nidana* as they directly or indirectly cause ill effects on *Amsapradesha* – *Vyayama*, *Plavana*, *Bharavahana*,



*Balatwat Vighraha, Dhukha Shayya*<sup>12</sup>, *Amsa Marmabhighata*<sup>13</sup> and *Kakshadhara Marmabhighata*<sup>14</sup> In modern science the clinical manifestations of *Apabahuka* are closely related to Frozen Shoulder.

### SAMPRAPTI



It is one of the *Vatakapha Pradhana Vata Vyadhi*, Due to *Nidana Sevana*, *Vyana Vata* vitiation occurs and gets *Sthana Samshraya* in the *Amsa Pradesha*. There it does the *Shoshana* of *Shleshaka Kapha*, *Mamsa*, *Sira*, *Snayu* leading to *Bahupraspanditaharatwam* (restricted movement of affected shoulder), *Shoola* (pain), *Stambha* (stiffness).<sup>15</sup>

### Samprapti Ghataka of Apabahuka

Nidana	: Vataprakopaka Nidan
Dosha	: Vata-Vyana (Chala Gunata Kshaya) Kapha-Shleshaka (Dravyata Kshaya)
Dushya	: Asthi, Majja Sira, Snayu, Kandara
Srotas	: Asthivaha, Majjavaha
Agni	: Jataragni, Asthi-Dhatvagni
Ama	: Jataragni & Dhatvagnijanya
Roga Marga	: Madhyama
Udbhavasthana	: Pakwashaya
Sancharasthana	: Sarvashareera Rasayani
Adhithana	: Amsa Pradesha
Vyaktasthana	: Bahu
Swabhava	: Chirakari

In the Classics of Ayurveda, the Specific line of treatment of *Apabahuka* mentioned are *Nasya*, *Uttarabhaktika Snehapana*, *Swedana*, *Shamanoushadhis*.<sup>16</sup>

*Nasya* is believed to strengthen *Skanda* and *Greeva*, so for *Nasya Dashamoola Bala Masha Taila* mentioned in *Vangasena Vatavyadhiadhikara* which contains the *Dashamoola* act as *Shoolagna*, *Tridoshagna*, *Shothagna*; *Bala* which acts as *Balya*, *Brumhana* because of its *Laghu*, *Snigdha*, *Pichhila* gunas, *Sheeta virya*; *Masha* acts as *Balya*, *Brumhana* even it can do *Poshana* of *Kapha* with its *Guru*, *Snigdha* Gunas; *Murchita Tila Taila* as *Taila* is best for *Vata Vikaras* and because of its *Sukshma Guna* it can enter minute channels very easily.

The *Rasnadi Guggulu* mentioned in *Yogaratanakar Vatavyadhiadhikar* which contains the drugs like *Rasna* acts as *Shoothahara*, *Shulahara*; *Guduchi* acts as *Rasayana*; *Eranda* acts as Anti- Inflammatory; *Devadaru* acts as *Vataghna* by its *Ushna Virya*; *Shunti* acts as *Deepana*, *Bhedana* and *Shulagna*; *Guggulu* by its *Laghu*, *Vishada*, *Sukshma* guna it helps in entering minute channels and acts as *Rasayana*,

Vedanasthapaka, Shoothahara, Medoroganuta. By these Guna-Karmas selected *Dravyas* can do the *Samprapti Vighatana* of *Apabahuka*.

## CONCLUSION

*Apabahuka* is one among *Vatavikara* which involves vitiation of *Asthi* and *Majja Dhatu*; *Sira*, *Snayu*, *Khandara Upadhatus*. It is one of the *Vyana Vata* and *Shleshaka Kapha Pradhana Vatavikara*. It is characterized by *Bahupraspanditaharatwam* (restricted movement of affected shoulder), *Shoola* (pain), *Stambha* (stiffness)<sup>2</sup>. Based on the similar clinical features, *Apabahuka* can be closely compared with Frozen Shoulder. From this case study it may be concluded that use of *Chikitsa Upakramas* described in *Ayurveda* like *Nasya* with *Dashamoola Bala Masha Taila* and *Shamana Chikitsa* with *Rasnadi Guggulu* are effective in the management of *Apabahuka* (Frozen Shoulder).

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