Smita Naram & Komal Gawali / Int. J. Res. Ayurveda Pharm. 15 (6), 2024



**Case Study** 

www.ijrap.net



(ISSN Online:2229-3566, ISSN Print:2277-4343)

# MANAGEMENT OF FROZEN SHOULDER WITH AYURVEDA: A CASE STUDY

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Received on: 30/11/24 Accepted on: 12/12/24

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#### DOI: 10.7897/2277-4343.156189

### ABSTRACT

Introduction: Frozen shoulder, also known as adhesive capsulitis, is a prevalent ailment of the shoulder joint marked by rigidity and discomfort. It frequently arises following shoulder traumas, surgical procedures, or in individuals with other systemic disorders. In Ayurveda, frozen shoulder is ascribed to a Vata dosha imbalance, which governs mobility and communication. This imbalance may lead to the accumulation of toxins in the shoulder joint, causing inflammation and rigidity. Ayurveda therapy for frozen shoulder aim to reduce inflammation, improve circulation, and restore balance in the Vata Dosha by dietary modifications, lifestyle alterations, and herbal remedies. A male patient with age 73 years reported to Ayushakti Ayurved Pvt. Ltd., with complaints of restricted movement of the left shoulder and was treated with dull throbbing discomfort and an inability to handle a glass of water with the left hand. He was diagnosed as frozen shoulder and was treated with medications naley Painmukti tablet and Rasnadi guggul tablet of Ayushakti. He was given local systemic interventions such as anti-clog paste massage, heat fomentation, shoulder dhara, raktamokshana (hirudotherapy) and few dietary and lifestyle modifications. After the complete therapy patient found significant results from stiffness and tenderness. The range of left shoulder was increased from adduction 30<sup>0</sup>-90<sup>0</sup>, abduction 40<sup>0</sup>-90<sup>0</sup>, flexion 40<sup>0</sup>-90<sup>0</sup> and extension 30<sup>0</sup>-90<sup>0</sup> within span of 20 days. He was given dietary modifications as no meat, low salt, low sugar and low calories diet. The medications along with Panchakarma and lifestyle modifications has been proved to give significant results in case of frozen shoulder.

Keywords: Frozen shoulder, Avabahuka, Marma therapy, Raktamokshana

# INTRODUCTION

Frozen shoulder, or adhesive capsulitis, is a prevalent ailment characterized by stiffness and pain in the shoulder joint. This condition occurs when the tissue surrounding the shoulder joint becomes tight and stiff, restricting movement and causing pain. This may render routine activities, such as reaching overhead or behind the back, challenging and uncomfortable. The precise etiology of frozen shoulder remains unidentified; nevertheless, it frequently manifests following a shoulder injury or surgical intervention, or in individuals with other systemic disorders. It often progresses slowly and can considerably restrict the range of motion in the afflicted shoulder<sup>1</sup>

Frozen shoulder is characterized by stiffness, pain, and restricted movement in the shoulder joint, making daily activities difficult. The capsule surrounding the shoulder joint experiences atrophy, scarring, hypertrophy, and inflammation. This inflammation may result in the capsule contracting and tightening, causing discomfort and stiffness in the shoulder. As the condition progresses, the ability to move the shoulder decreases, making daily tasks more challenging. The management of frozen shoulder consists of anti-inflammatory drugs may be used to alleviate symptoms, corticosteroid injection may be advised to alleviate inflammation in the shoulder joint in some instances.<sup>2</sup>

In Ayurveda, frozen shoulder is attributed to an imbalance of the Vata dosha, which regulates movement and communication throughout the body. This ailment can be associated with Avabahuka referenced in Ayurvedic texts. In Avabahuka illness, the Vata Dosha is primarily disturbed in the shoulder joint. The disturbed Vata Dosha leads to a decrease in the lubricating fluid

necessary for joint health. This results in dryness, discomfort, and restricted mobility in the shoulder joint. This imbalance can cause toxins to build up in the shoulder joint, resulting in inflammation and stiffness.<sup>3</sup>

Ayurveda therapies for frozen shoulder emphasize diminishing inflammation, enhancing circulation, and reestablishing equilibrium in the Vata Dosha via dietary adjustments, lifestyle changes, and herbal treatments. By targeting the underlying cause of the disease and fostering comprehensive recovery, Ayurveda can assist clients in restoring mobility in their shoulder joint and enhancing their quality of life. In this instance, specific treatments like massage with anti-clog paste, heat therapy, oil pouring, leech therapy, and targeted therapy have successfully relieved pain, stiffness, and limited mobility in patients within 20 days.

#### **Case Report**

Informed consent was obtained from the patient prior to the commencement of the trial, in accordance with international guidelines for good clinical practices (ICH-GCP). A 73-year-old male patient presented to Ayushakti Ayurveda Pvt Ltd, Chembur, Navi Mumbai branch on 18/04/2024, reporting restricted movement of the left shoulder, accompanied with dull throbbing discomfort and an inability to handle a glass of water with the left hand.

He had been experiencing limited mobility in the left shoulder, accompanied by a dull ache and an inability to grasp a glass of water with the left hand for the past seven months. The orthopedist identified the condition as frozen shoulder and treated it with NSAIDs, antacids, and comprehensive physiotherapy. Nonetheless, despite the intervention, there was no notable enhancement in the symptoms. The patient thereafter sought consultation at the Ayushakti Ayurveda Pvt Ltd outpatient department in Chembur. The patient lacked a history of significant ailments, including diabetes or hypertension.

### **General examination**

The vitals of the patient were blood pressure 130/80 mm Hg and pulse 82/min. The systemic examination showed no abnormalities, and there was no pallor, icterus, or cyanosis observed. No palpable lymph node was noted.

### Clinical examination of left shoulder joint

Muscle power: 5/5 in upper and lower limbs Muscle tone: Normal Muscular atrophy: Not present Discoloration: Absent Swelling: Absent Stiffness: Present Tenderness: Present

### Restriction of range of left shoulder joint

Adduction-30<sup>0</sup> Abduction- 40<sup>0</sup> Flexion- 40<sup>0</sup> Extension- 30<sup>0</sup>

# Investigation

**MRI of left shoulder joint**: Degenerative changes in the superior glenoid labrum at the 12 o'clock position with mild attenuation of the rest of the glenoid labrum

#### **Treatment Protocol**

As per etiology and clinical presentation, the patient was diagnosed as Avabahuka. Based on the diagnosis, a treatment plan was established.

### **OBSERVATION AND RESULTS**

#### Table 1: Detailed Local Systemic Treatments Localized Systemic Therapy Sessions

Local Systemic treatment	Sittings
Anti-clog paste & hot fomentation on left shoulder	4
Shoulder Dhara (Pouring warm medicated oil on left	5
shoulder)	
Raktamokshana (Bloodletting)	1
Shoulder Marma therapy	7

#### **Localized Systemic Therapies**

Anti-clog pastes with heated fomentation: The anti-clog paste was initially applied topically to the patient's left shoulder, followed by heated fomentation. The anti-clog paste comprises components such as dry ginger powder and carom seeds powder, which facilitate the digestion of Aam (toxins) collected in the shoulder joint, alleviating pain and inflammation. This was succeeded by the use of heated fomentation to alleviate the stiffness. This technique was continued constantly for four days. The Shoulder Dhara treatment involved the continuous application of heated medicinal oil over the left shoulder joint, administered in a certain direction and with controlled pressure. This technique was performed repeatedly over a duration of 5 days.

Subsequently, leech therapy was administered to the left shoulder joint. Only one session was conducted with the patient.

In conjunction with these therapies, the Shoulder Marma therapy was administered for aduration of seven days.

Herbal treatments were provided in addition to local therapies for palliative care. (Table 2)

Table 2: Shamana Chikitsa

Name of medicine	Dose	Duration	Before/After food	Anupana	
Painmukti	2 tablets	15 days	After food	Warm	
MJ tablet	BD			water	
Rasnadi	2 tablets	15 days	After food	Warm	
Guggulu	BD	-		water	
tablet					
BD: Twice a day					

**Internal medicine:** Tablet Painmukti MJ 2 tablets/twice daily after food for fifteen days with warm water. Tablet Rasnadi Guggulu: 2 tablets twice daily after food for fifteen days with warm water. Consumption of 1 teaspoon of cumin seeds, 1 teaspoon of coriander seeds, 1 teaspoon of fennel seeds, and half a teaspoon of carom seeds on an empty stomach in the morning was advised.



Day 0



Day 20

### **Observational Images**

#### Table 3

SN	Symptoms	Before Treatment	After Treatment		
1	Stiffness	Present	Absent		
2	Tenderness	Present	Absent		
Range of left shoulder movement					
3	Adduction	300	90 <sup>0</sup>		
4	Abduction	$40^{0}$	90 <sup>0</sup>		
5	Flexion	$40^{0}$	90 <sup>0</sup>		
6	Extension	30 <sup>0</sup>	90 <sup>0</sup>		

## DISCUSSION

Action of anti-clog paste and heated fomentation: The anticlog paste has materials such as Piper betel leaves, dried ginger powder, and *Ajwain* seeds (*Tachyspermum ammi*). This method facilitates the digestion of aam (toxins) accumulated in the joint and alleviates pain by enhancing circulation in the shoulder joint. The *Piper betel* leaves possess phytocomponents that exhibit antioxidant, anti-inflammatory, antibacterial, and antifungal effects. It possesses analgesic and cooling characteristics that are administered to the affected area for alleviation.<sup>4</sup>

*Tachyspermum aammi* possesses antispasmodic, stimulant, carminative, and tonic effects. *Zingiber officinale* alleviates arthritic joint discomfort.<sup>6</sup>

### Action of shoulder Dhara

This is a treatment involving the application of warm medicinal oils to the shoulder joint. This process employs a combination of Samvatak oil and Balada oil. Samvatak oil mostly comprises herbs such as Rasna (*Pluchea lanceolata*), Devadaru (*Cedrus deodara*), and Eranda (*Ricinus communis*).

Rasna is claimed to possess analgesic, anti-inflammatory, and antioxidant properties.<sup>7</sup>

The herb Devdaru possesses anti-inflammatory, anti-arthritic, anti-spasmodic, and wound-healing effects.<sup>8</sup>

The herb Eranda is reputed to possess analgesic and antiinflammatory effects.<sup>9</sup>

Balada oil primarily comprises the components Bala (*Sida cordifolia*) and Usheera (*Vetiveria zizanioides*).

The plant Bala is thought to be beneficial for the shoulder joint.<sup>10</sup> The herb Usheera possesses stimulant and anti-spasmodic properties.<sup>11</sup>

The shoulder dhara eliminates excessive morbid dosha from deeper dhatus and alleviates Vata dosha.

#### Action of herbal remedies

The Painmukti M.J. tablet comprises the herbs Rasna, Shallaki (Boswellia serrata), Musta (Cyperus rotundus), Nirgundi (*Vitex negundo*), Punarnava (*Boerhavia diffusa*), and Shunthi (*Zingiber officinale*), which are reputed for their analgesic and antiinflammatory effects. <sup>8,12-16</sup>

The tablet Rasnadi Guggulu primarily comprises the herbs Rasna, Guggulu (*Commiphora wightii*), and Guduchi (*Tinospora cordifolia*). Erandamool, Devdaru, and Shunthi. These herbs are thought to possess antioxidant and anti-inflammatory properties.<sup>8,17-19</sup>

### Action of Marma therapy

Marma therapy involves the systematic application of pressure on essential places of the body to alleviate pain and eliminate blockages. Marma therapy involves applying pressure to important places on the body to alleviate pain and enhance circulation in the affected area. Marma therapy was administered on the Manya Marma (located half an inch downward and backward from the triangular corner of the jawline), Lohitaksha Marma (the center of the armpit through which the axillary artery traverses), Bruhati Marma (three inches above the inner, lower triangular corner of the shoulder blade), and Kakshadhara Marma (two inches below the clavicle).

# Action of leech therapy

The saliva of leeches comprises several compounds that have vasodilatory, anesthetic, anti-inflammatory, and antibacterial properties. This reduces pain and stiffness and immediately improves blood flow in the shoulder joint.<sup>20</sup>

Consuming meat, sweets, dairy, sour foods, fermented meals, and fried foods can worsen inflammation. Consequently, the patient was instructed to refrain from certain foods and adhere to a stringent dietary program.

### CONCLUSION

Patient diagnosed with frozen shoulder was found successful results in his complaints of pain, stiffness, and limited mobility with medications Tab Painmukti MJ and Rasanadi guggul and local systemic interventions such as anti-clog paste massage, heat fomentation, shoulder dhara, raktamokshana and few dietary and lifestyle modifications.

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### Cite this article as:

Smita Naram and Komal Gawali. Management of Frozen Shoulder with Ayurveda: A Case Study. Int. J. Res. Ayurveda Pharm. 2024;15(6):38-41 DOI: <u>http://dx.doi.org/10.7897/2277-</u>4343.156189

#### Source of support: Nil, Conflict of interest: None Declared

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