



Case Study

AYURVEDIC APPROACH IN THE MANAGEMENT OF AVABAHUKA (ADHESIVE CAPSULITIS)

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ABSTRACT

Avabahuka is a condition where the *Vata* near the base of the shoulder constricts the *Siras*, preventing the shoulder joint from moving. The signs of adhesive capsulitis, also referred to as frozen shoulder or *Avabahuka*, may co-occur. The clinical illness known as frozen shoulder causes painful restrictions to both passive and active shoulder movements. A 25-year-old male patient arrived at the OPD with the main complaints of left shoulder joint pain, stiffness, restricted movement, and loss of sleep brought on by pain in the previous 12 months. The clinical presentation of the symptoms significantly improved when the patient underwent *Panchakarma* therapy, which includes *Jambira-Pinda Sweda*, *Nrap Vallabha Taila Nasya*, and the use of specific Ayurvedic medications.

INTRODUCTION

Adhesive shoulder capsulitis, also known as arthrofibrosis, is a medical condition in which the glenohumeral joint develops excessive adhesions or scar tissue, causing stiffness, discomfort, and dysfunction.^[1,2]


Shoulder pain and stiffness can negatively impact everyday activities and, as a result, lower the quality of life. It is commonly acknowledged that Simon-Emmanuel Duplay was the first doctor to describe this condition, which he dubbed "scapulohumeral peri-arthritis." With general radiological preservation of the joint, "peri-arthritis" refers to a painful shoulder ailment that is separate from arthritis. The phrase "frozen shoulder," later created by Earnest Codman in 1934, emphasizes the crippling loss of shoulder motion experienced by those suffering from this illness. This ailment, according to him, is "difficult to define, difficult to treat, and difficult to explain from a pathology point of view."^[3]

The prevalence of adhesive capsulitis ranges from 3% to 5% in the general population, but it can reach 20% in diabetic patients. Despite the fact that bilateral involvement has been documented in as many as 40% to 50% of patients, idiopathic adhesive capsulitis frequently affects the non-dominant extremity.^[4]

The *Vata Dosha* is in charge of regulating the body's entire range of neurological and neuromuscular functions. It controls every movement the body makes. *Vata* in its vitiated state fills the body's *Rikta Strotas* (empty or vulnerable channels), leading to a variety of illnesses known as *Vatavyadhi*.^[5]

Amsa Shosha might be thought of as the disease's initial stage, during which the *Shleshaka Kapha* (one of the forms of *Kapha*) within the shoulder joints is lost or becomes dry. The loss of *Shleshaka Kapha* leads to the following stage, known as *Avabahuka*, where symptoms like pain when moving and restricted movement develop. The *Madhukosha Teeka* comments on this, stating that *Avabahuka* is *Vata-Kaphajanya* and *Amsa Shosha* is created by *Dhatukshaya*, or *Shuddha Vatajanya*.^[6]

For the management of frozen shoulder, several therapeutic modalities are suggested. These include the use of analgesics, anti-inflammatory drugs, and steroid injections^[7,8] to manage pain, as well as other therapeutic modalities including physiotherapy, which frequently involves stretching exercises both

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actively and passively and joint mobilizations.^[9] Orthographic distension^[10], surgical capsular release^[11], or manipulation while sedated have all been recommended in cases of severe limitation. Despite the wide range of methods, there is insufficient convincing data to show that treatment expedites recovery^[12].

To ascertain whether the therapeutic intervention led to a measurable improvement in shoulder pain and range of motion, a patient with adhesive capsulitis was evaluated and treated with a *Panchakarma* therapeutic regime that included *Jambira-Pinda Sweda*, *Nrap Vallabha Taila Nasya*, *Simhanada Guggulu*, and *Rasnasaptak Kwatha*.

Case Description

A 25-year-old male visited the outpatient department (OPD) at the National Institute of Ayurveda (NIA), Jaipur, complaining mostly of pain in his left shoulder joint as well as stiffness, restricted movement, and insomnia brought on by the pain. In the previous 12 months, all of these symptoms existed. He was unable to carry out her everyday tasks.

In a year, the patient had three episodes of pain in the left upper limb. It was a sharp, terrible pain that was accompanied by numbness. She sought medical attention and was given diclofenac sodium and serratiopeptidase, antacids, and diclofenac gel for topical use; however, she saw no notable improvement. The orthopedician who treated him later determined that he had a frozen shoulder. He was given the same prescription for NSAIDs, antacids, and intense daily physical therapy. It was impossible to identify a cause or trigger. Following that, the patient sought Ayurvedic OPD treatment at NIA, Jaipur.

Past History

The patient has no history of hypertension, diabetes mellitus, or any physical damage to the left shoulder. There is no history of musculoskeletal disorders in the family. The patient consumed a varied diet.

Physical Examination

Height: 168cm; weight: 65kg, blood pressure: 130/90mmHg, pulse: 74 minutes; absence of pallor, icterus, cyanosis, clubbing, and edema, breathing is clear and unobstructed; the central nervous system (CNS) is functioning normally with regard to consciousness, attention, orientation, memory, and speech. muscular power was elicited as 5/5 in all limbs, and reflexes in the upper and lower limbs were

both at a normal level, 3/5 in the right upper limb, 5/5 in the left upper limb, and 5/5 in both lower limbs in terms of muscle power, *Vata pradhana Kaphaja* is the *Prakriti*.

- Left side shoulder joint examination is as follows. The right side is healthy.
- Swelling: Non-existent
- Present: Tenderness
- The patient's responses to the lift-off test, the belly press test, and the drop arm test were all positive. Howkins and Neer tests were all successful.
- Active ROM (AROM) is limited: flexion 55, extension 25, abduction 50, internal rotation 30 and exterior rotation 40°.
- A 9 was the Vas rating for left shoulder discomfort.

Investigations

The results of both haematological and biochemical tests indicated that they were within the physiological limit. An X-ray of the shoulder joint taken a month ago appeared to be normal. The left shoulder's current MRI shows no obvious abnormalities.

Therapeutic Intervention

The line of treatment chosen for this patient was according to *Dosha-Dushti* and *Stroto-Dushti* as above, which included *Pinda Sweda* with *Jambira Pinda Sweda* on left shoulder, and *Briahna Nasya* with *Nrap Vallabha Taila* 8-8 drops and Ayurvedic medicines-*Simhanada Guggulu* 500mg twice a day, *Rasna Saptak Kwath* 30ml twice a day with lukewarm water before meals and *Ashavgandha* 3g + *Chopchini* 2g + *Nagaradhha Churn* 1g twice a day with lukewarm water after meals. The indoor patient department (IPD) level treatment plan lasted for 20 days. The patient was admitted in the male ward *Pinda Swedana* was done with *Jambira Pinda* on the left shoulder for 25 minutes by gently rubbing around the shoulder.

Samprapti Ghataka (Factors of Pathogenesis as per Ayurveda)

Dosha: Shleshaka Kapha, Vyana Vata

Dushya: Sira, Mamsa, Snayu, Kandara, Asthi

Srotas: Mamsavaha, Asthivaha

Sroto Dushti: Sanga, Vimargagamana

Roga Marga: Madhyama

Udbhava Sthana: Pakwashaya

Vyakta Sthana: Bahu

Adhithana: Amsa Pradesha

Vyadhi Swabhava: Chirakari.

Time Lines of Case

Visit	Description of disease	Treatment plan
03 March 2022 1 st Visit at OPD Level	Patient visited NIA, Jaipur, OPD with complaints of left shoulder joint pain along with the stiffness, difficulty in movements of the hand, insomnia due to pain. All these symptoms were there in the past 1 year. He was unable to do his daily activities. Flexion 55, Extension 25, Abduction 50, Internal rotation 30, external rotation 40. and VAS score 9.	1. <i>Simhanada Guggulu</i> 500mg bd bf with water 2. <i>Rasna Saptak Kwath</i> 30ml bd bf 3. <i>Ashavgandha</i> 3g + <i>Chopchini</i> 2g + <i>Nagaradhha Churna</i> 1g bd af 4. <i>Panchsakara Churna</i> 5g hs for 15 days and advise for IPD Level.
14 th March 2022 to 13 th April 2022 2 nd Visit at IPD Level	Ayurvedic treatment regimen at IPD for 16 days given. First assessment done before starting IPD treatment and second assessment done after 15 days. The range of restricted movements improved gradually from Flexion 55 to 70, Extension 25 to 30, Abduction 50, Internal rotation 30 to 40, external rotation 40. and Pain on VAS scale changed from 9 to 7.	1. <i>Jambeera Pinda Sweda</i> and <i>Brahana Nasya</i> with <i>Nrup Vallabha tail</i> for 16 days. Along with oral medicine 1. <i>Simhanada Guggulu</i> 500mg bd bf 2. <i>Rasna Saptak Kwath</i> 30ml bd bf 3. <i>Ashavgandha</i> 3g + <i>Chopchini</i> 2g + <i>Nagaradhha Churn</i> 1g bd af
28 th April 2022 3 rd visit at OPD level	2 nd assessment done after ipd treatment and the range of restricted movements came to flexion 130, extension 45, abduction 110, internal rotation 70, external rotation 70, and pain on VAS scale changed from 7 to 3.	1. <i>Simhanada Guggulu</i> 500mg bd bf 2. <i>Rasna Saptak Kwath</i> 30ml bd bf 3. <i>Ashavgandha</i> 3g + <i>Chopchini</i> 2g + <i>Nagaradhha Churn</i> 1g bd af
9 th June 2022 4 th Visit at OPD Level	3 rd assessment done on fourth visit, range of shoulder movement came to 150° for flexion, 55° for extension, 130 for abduction, 80 for internal rotation, 80 for external rotation. Pain on VAS scale changed from 3 to 1.	1. <i>Simhanada Guggulu</i> 500mg bd bf 2. <i>Rasna Saptak Kwath</i> 30ml bd bf 3. <i>Ashavgandha</i> 3g + <i>Chopchini</i> 2g + <i>Nagaradhha Churn</i> 1g bd af
8 August 2022 5 th Visit at OPD Level	4 th assessment done on fifth visit, range of shoulder movement came to 180° for flexion, 55° for extension, 150 for abduction, 90 for internal rotation, 80 for external rotation. Pain on VAS scale changed from 1 to 0.	1. <i>Simhanada Guggulu</i> 500mg bd bf 2. <i>Rasna Saptak Kwath</i> 30ml bd bf 3. <i>Ashavgandha</i> 3g + <i>Chopchini</i> 2g + <i>Nagaradhha Churn</i> 1g bd af

Outcomes

Shula (Pain) assessed using VAS Scale score

Vas scale score	1 st visit	2 nd visit	3 rd visit	4 th visit	5 th visit
	9	7	3	1	0

Difficulty in Movements of the hand (ROM) assessed by the usage of Goniometer

ROM	1 st visit	2 nd visit	3 rd visit	4 th visit	5 th visit
Flexion	55°	70°	130°	150°	180°
Extension	25°	30°	45°	55°	55°
Abduction	50°	50°	110°	130°	150°
Rotation External	40°	40°	70°	80°	90°
Internal	30°	40°	70°	80°	80°

DISCUSSION

Hetu (causes) such *Vatakarak Ahara* (*Vata* aggravating diet), *Ativyayam* (excessive activity), vitiated *Vata Dosha* (*Vyana Vayu*), and *Aam* created as a result of *Agnimandhya* got collected in the *Amsa Sandhi* in the current situation. *Shool* (pain) and *Stambha* (stiffness), the primary symptoms of *Avabahuka* and traits of *Vata* and *Kapha*, respectively, were created by this restriction in joint movement together with the depletion of lubrication of *Sandhi* as a result of *Vata Prakopa*. The seat of the *Kapha* is *Amsa Sandhi*. Therefore, the treatment plan was created with the intention of soothing the internal and exterior *Vata-Kapha Dosha Dushti* and treating the *Kha Vaigunya* by fortifying the joint.

A chronic inflammatory response with fibroblastic proliferation that may be immunomodulated is part of the frozen shoulder pathophysiology. The typical progression of frozen shoulder from inflammation to fibrosis is pain before stiffness. These macroscopic and clinical characteristics lend credence to the pathology results of both fibrosis and inflammation [13]. Due to its *Snigdha*, *Amla*, and *Ushna guna*, *Jambira Pinda Sweda* was intended to work on fibrosis after this treatment to minimize inflammation. *Swedana* also improves local microcirculation by speeding up the flow of blood through peripheral arterioles, which helps wounded cells receive more oxygen and nutrients. *Ushna virya* in *Jambira* causes *Shamana* of *Vata Kapha* in the shoulder joint and reduces the symptoms of *Avabahuka*. *Jambira* also has *Amla rasa* [14].

Jambira Pinda Sweda was used in the current instance to treat *Avabahuka*. The constituents of *Jambira Pinda Sweda* are *Jambira*, *Methi*, *Neem oil*, *Shatahva*, *Tila*, *Haridra*, *Kulatha*, *Lasuna*, and *Saindhava* [15]. Given that *Avabahuka* is a *Vatavyadhi*, *Snehana* type *Brimhana Nasya* are the most advantageous. This treatment is recommended in the case of *Dhatushoshana Avastha* and is utilized to obtain *Tarpana*. The medications employed in *Navana Nasya* or *Brimhana Nasya* of the *Snehana* kind contain *Gunas* such as *Snigdha*, *Sukshama*, *Sara*, *Ushna*, and others that are antagonistic to the *Vata dosha's Gunas* and hence relieve it. The majority of the medications in *Nrap vallabha taila* [16] have *Vatahara*, *Shula Prashamana*, *Shothahara*, *Brimhana*, and *Balya* activities and are frequently prescribed for *Vata Vikaras*.

Particularly *Tikta* and *Katu Rasa* contained in *Simhanada Guggulu* [17] have anti-*Ama* and anti-*Kapa* qualities, which are the main causes of this sickness. *Simhanada Guggulu's Ushna* qualities prevent the *Ama* from remaining at the site of pathogenesis and

producing *Srotorodha*. It lessens pain and *Srotorodha*. Additionally, it exhibits *Sheeta* and *Ruksha Guna* of *Vata's* hostile behaviour. Thus, it decreases the pathogenic process while simultaneously controlling *Ama* and *Vata*. As these herbs work together as an immunosuppressive and antioxidant for management of the symptoms of arthritis by reversing at the cellulomechano-bio molecular level, *Rasna Saptak Kwath* is a significant formulation that responds favourably to the cardinal symptoms of arthritis like inflammation, pain, stiffness, etc. Analgesic *Ashwagandha* [18] calms the nerve system's response to pain. *Ashwagandha's* potent anti-arthritic qualities are now well known and established; in addition, it has been found to be beneficial as an antipyretic and analgesic. *Chopchini* [19] exhibits the following properties: cytotoxic, anti-inflammatory, anti-allergic, anti-oxidant, and anti-inflammatory. *Nagarmotha*, *Shunthi*, *Ativisha*, *Dhatki*, *Rasont*, *Vatsak*, *Inderjau*, *Bilva*, *Patha*, and *Kutki* are all parts of the *Nagradya Churna* [20] kept at *Grahani Chikitsa*. All of these substances have the attributes of *Dipana*, *Pachana*, *Samgrahi*, *Visaghna*, *Kriminut*, *Sandhaniya*, *Ama*, and *Dosahara*. In order to manage *Avabahuka*, a procedure, internal medications, and healthy food and lifestyle practices were used.

CONCLUSION

When treating *Avabahuka* (frozen shoulder), the combination of *Singhnad Guggulu*, *Rasnasaptak Kwatha*, *JambiraPinda Sweda*, and *Nrap Vallabha Taila Nasya* is useful in easing pain and enhancing shoulder joint flexibility. In terms of the disease's improvement, *Panchakarma* therapy and *Shamana Aushadhi* exhibit highly promising results. For *Avabahuka* in a short amount of time, these methods are both secure and productive.

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