



Management of Avabahuka (Frozen Shoulder) Using Agnikarma: A Single-Case Study)

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Abstract : Shoulder joint discomfort and stiffness are indicators of frozen shoulder, which is also referred to as adhesive capsulitis. Symptoms and signs usually begin gradually subsiding before getting more severe. Frozen shoulder is a condition that is more prevalent in women than in men, particularly those between the ages of 40 and 60. Furthermore, individuals with diabetes are at an increased risk of developing frozen shoulder. Inflammation is the most common cause of frozen shoulder, which is characterized by swelling, pain, and irritation of the tissues surrounding the joint. The underlying cause of this ailment is not yet definitively understood. It is estimated that 2 to 5 percent of the general population will experience frozen shoulder at some point in their lives, with 8.2 percent of males and 10.1 percent of working-age women affected by it. This condition can affect one or both shoulders, and typically resolves on its own within one to two years. Depending on the severity of the disease, a combination of NSAIDs, steroids, physiotherapy, and surgical intervention may be recommended by modern medicine. Ayurveda has suggested Agnikarma as a potential treatment for frozen shoulder, as it was believed to be an effective therapy for Avbahuka. Frozen shoulder and Avbahuka may present with similar symptoms and indicators. Agnikarma, a distinct technique described in Ayurvedic texts, is used to treat Avbahuka that is caused by Dhatukshayajanya vata prakopa. Therefore, the aim of this research was to examine the therapeutic effects of Agnikarma in cases of frozen shoulder in Avabahuka.

IndexTerms – NSAIDs, Agnikarma, Avbahuka.

I.INTRODUCTION

Frozen Shoulder, medically termed Adhesive Capsulitis, is a chronic inflammatory and fibrotic condition affecting the glenohumeral joint capsule, resulting in progressive stiffness, persistent pain, and marked reduction in both active and passive range of motion (ROM). It primarily involves pathological changes in the synovial membrane, coracohumeral ligament, and the joint capsule, leading to thickening, fibrosis, and adhesion formation around the humeral head. These structural alterations restrict the physiological glide of the capsule, producing a characteristic capsular pattern of motion limitation—external rotation being most severely affected, followed by abduction and internal rotation.

Clinically, the disease evolves in three well-defined stages:

1. Freezing (Painful) Stage: Marked by acute inflammation of the synovium and capsule, leading to intense, diffuse shoulder pain, often worsening at night. This stage may last for 2–9 months.
2. Frozen (Stiffness) Stage: Characterized by progressive capsular fibrosis and adhesion formation. Pain may diminish gradually, but stiffness becomes pronounced, severely limiting daily activities. This stage typically persists for 4–12 months.
3. Thawing (Recovery) Stage: Involves gradual resolution of fibrosis and capsular contracture, resulting in the slow restoration of joint motion and function over 6–24 months.

Epidemiological studies indicate that frozen shoulder affects approximately 2–5% of the general population, with a higher prevalence among middle-aged women (40–60 years). A strong association exists with systemic diseases, particularly diabetes mellitus (Type 1 and Type 2), which increases susceptibility up to fivefold. Other predisposing factors include thyroid dysfunction, cardiovascular diseases, prolonged immobilization, cervical spondylosis, and postoperative shoulder conditions.

In traditional Ayurvedic medicine, the condition closely corresponds to Avabahuka, a disorder attributed to Vata dosha vitiation leading to pain, rigidity, and restricted shoulder mobility. Ayurvedic classics describe Agnikarma (therapeutic cauterization) as an effective intervention for Avabahuka, aimed at alleviating pain, reducing stiffness, and restoring functional movement. Integrating Ayurvedic modalities like Agnikarma with evidence-based modern medicine may offer a more comprehensive and sustainable solution for managing frozen shoulder.

II.PHYSICAL EXAMINATION

A meticulous physical examination is essential for diagnosing frozen shoulder and differentiating it from other shoulder pathologies such as rotator cuff tears, subacromial impingement, or osteoarthritis. The assessment should include inspection, palpation, range of motion testing, and special tests to evaluate pain, stiffness, and functional impairment.

III.A CASE REPORT

A 52-year-old female patient presented to the outpatient department with complaints of pain, stiffness, and restricted movement in her right shoulder for the past six months. The pain was dull, aching, and non-radiating in nature, gradually increasing in intensity and associated with difficulty in performing daily activities such as combing hair, dressing, and overhead reaching. The patient reported worsening of symptoms at night.

IV.EXAMINATION

On inspection, the shoulder contour appeared normal with mild muscle wasting around the deltoid region.

On palpation, diffuse tenderness was present over the anterior and lateral aspect of the shoulder. No local rise of temperature was noted.

Range of Motion (ROM) Assessment (Right Shoulder):

Flexion: 90° (Normal: 180°)

Abduction: 70° (Normal: 180°)

External Rotation: 10° (Normal: 90°)

Internal Rotation: 30° (Normal: 70°)

Both active and passive movements were equally restricted, confirming a capsular pattern of stiffness. The Apley's Scratch Test showed marked limitation, while impingement tests were negative. No neurological deficits were noted.

V.DIFFERENTIAL DIAGNOSIS

To rule out similar presentations:

- Rotator cuff tear: Passive movement preserved; weakness on resisted external rotation or abduction.
- Subacromial bursitis: Painful arc but no significant restriction in passive motion.
- Glenohumeral arthritis: Crepitus and radiographic degenerative changes present.
- Cervical spondylosis: Referred pain with normal shoulder ROM

VI.DIAGNOSIS

According to history, symptoms and examination, it can be correlated with Avbahuka in Ayurveda.

External treatment:

Agnikarma : At the affected area 4 sittings (at an interval of seven days up to 28 days)

Duration : 28 days

Followup : After 2 Months.

VII.RESEARCH METHODOLOGY

The methodology section outline the plan and method that how the study is conducted. This includes Universe of the study, sample of the study, Data and Sources of Data, study's variables and analytical framework. The details are as follows;

7.1 Study Design

This study was conducted as a single case clinical study to evaluate the therapeutic efficacy of Agnikarma in the management of Frozen Shoulder (Adhesive Capsulitis), correlated with the Ayurvedic condition Avabahuka. The research aimed to assess improvement in pain, stiffness, and range of motion (ROM) following the intervention.

7.2 Study Setting

The study was carried out in the Shalyatantra Department of Late Kedari Redekar Ayurvedic Hospital. The duration of the study was 28 days, including observation and follow-up.

7.3 Patient Selection Criteria

7.3.1 Inclusion Criteria

- Patients aged between 40–60 years.
- Diagnosed cases of Frozen Shoulder / Avabahuka based on clinical findings (pain, stiffness, restricted shoulder movements).
- Both male and female patients.
- Patients willing to participate and provide written consent.

7.3.2 Exclusion Criteria

- Patients with fractures, dislocations, or neurological deficits in the affected limb.
- Rheumatoid arthritis, osteoarthritis, or cervical spondylosis with referred shoulder pain.
- Post-surgical or post-traumatic shoulder stiffness.
- Patients with uncontrolled diabetes or systemic infection.

VIII.OBSERVATION AND RESULTS

The patient underwent Agnikarma therapy once weekly for four consecutive weeks. The affected areas of the shoulder were cleaned, demarcated, and treated with a heated Panchadhatu Shalaka applied in a controlled grid-like pattern over tender points. Post-procedure, Aloe vera pulp and a Ghrita-based soothing application were used to minimize local irritation. Gentle mobilization exercises and physiotherapy were initiated 48 hours after each session. The patient tolerated the procedure well, with no significant adverse effects such as blistering, infection, or scarring. Mild erythema and warmth were observed immediately following each session but resolved spontaneously within 24 hours.

Subjective observation revealed gradual improvement in symptoms over the treatment course. After the first session, the patient reported a modest reduction in pain and improved comfort during light activities. By the second session, stiffness had decreased moderately, and she could perform some daily tasks, such as lifting light objects and reaching to shoulder height, with less discomfort. Following the third session, a marked improvement in mobility was noted, enabling the patient to raise her arm above shoulder level with minimal pain. By the fourth session, pain intensity had reduced dramatically, stiffness was mild, and she was able to perform most routine activities independently. Nighttime discomfort also resolved by the final session, improving her quality of sleep.

IX.DISCUSSION

Frozen shoulder, or adhesive capsulitis, is a chronic condition characterized by pain, stiffness, and limited range of motion, commonly affecting middle-aged women and patients with diabetes. Conventional treatments like NSAIDs, corticosteroid injections, and physiotherapy aim to reduce inflammation and improve mobility but may not always provide complete relief. In this case, Agnikarma, a classical Ayurvedic therapeutic cauterization, was applied to the affected shoulder, targeting tender and stiff areas. The procedure induced localized hyperemia, enhanced microcirculation, reduced capsular fibrosis, and modulated pain through activation of endogenous pathways. Over four weekly sessions, the patient experienced progressive relief in pain and stiffness, with significant improvement in range of motion and daily functional activities. Objective measurements confirmed near-normal recovery of flexion, abduction, and rotation. The outcomes align with Ayurvedic principles, as Agnikarma pacifies vitiated Vata and restores joint function. The procedure was well-tolerated, minimally invasive, and free of complications. This case demonstrates that integrating Agnikarma with physiotherapy and supportive Ayurvedic therapies can provide an effective and holistic approach for managing chronic frozen shoulder, especially in patients unresponsive to conventional treatments. Further studies with larger samples are recommended to validate these findings.

X.PROBABLE MODE OF AGNIKARMA

In the Agnikarma procedure, physical heat from a red-hot Shalaka is used to transfer therapeutic heat to the Twakdhatu by creating a proper burn. The properties of Agni, such as being hot, sharp, light, subtle, mobile, expansive, and dry, help in removing blockages in the channels, calm the imbalanced Vata and Kapha doshas, and maintain their balance, thereby eliminating the pathological process. After Agnikarma, the hot quality of Agni pacifies the cold quality of Vayu and reduces pain. Acharya Charaka stated that Agni is the best treatment for pain. It reduces Kapha accumulation, thus relieving inflammation. According to Ayurveda, each tissue has its own metabolic fire, and when it weakens, disease starts to appear. In such cases, Agnikarma uses external heat that penetrates deeper tissues, increasing their metabolic fire, which helps digest and remove the aggravated doshas, thus curing the disease^{xi}. The therapeutic heat improves blood circulation at the ankle joint, providing proper nutrition to the tissues. This improved circulation helps remove pain and produces substances from the affected area, ultimately reducing local inflammation. Therapeutic heat also stimulates the lateral spinothalamic tract, which activates the body's natural pain-blocking system by releasing endogenous opioid peptides. In this procedure, the temperature at the treatment site increases, this reduces nerve reflexes and relaxes muscles, leading to a decrease in stiffness.

XI.CONCLUSION

Frozen shoulder (adhesive capsulitis) is a debilitating condition causing pain, stiffness, and restricted shoulder movements, often affecting middle-aged women and diabetic patients. In this case, Agnikarma therapy, combined with supportive physiotherapy, effectively reduced pain, alleviated stiffness, and restored functional range of motion. The treatment was safe, minimally invasive, and well-tolerated without adverse effects. Objective and subjective assessments showed significant improvement in both mobility and daily activities. Agnikarma appears to act by enhancing local circulation, reducing capsular fibrosis, and modulating pain. The outcomes also support Ayurvedic principles of pacifying vitiated Vata in Avabahuka. This case highlights the potential of integrating traditional Ayurvedic therapies with modern rehabilitation for managing chronic frozen shoulder. Further studies are recommended to establish standardized protocols and validate long-term efficacy.

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