



Case Study

ROLE OF THE AGNIKARMA IN THE MANAGEMENT OF FROZEN SHOULDER

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ABSTRACT

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*.

INTRODUCTION

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^[1]. 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^[2]. Ayurveda is considered to be India's traditional medicinal system that has been in practice for thousands of years to maintain people's health and treat various ailments. It is a vast ocean of mystical remedies for treating complex medical conditions. Ayurveda and Chinese medicine are two of the oldest traditional medical specialties that originated in Asia and are still prevalent today. The classical documents of Ayurveda comprise

descriptions of miraculous treatments, and the father of anatomy and surgery, Sushruta, has detailed the treatment of several surgical diseases in his memoir, Sushruta Samhita. ^[3]

Para surgical procedures have been discussed for conditions that require operative measures to be treated. Amongst them, *Ksharakarma* (use of caustics), *Raktamokshana* (bloodletting), and *Agnikarma* (cauterization)^[4] are some of the techniques that are less disruptive and can take the place of surgical operations. Despite significant development in modern medicine, it has failed to provide permanent relief from certain persistent diseases. One such ailment is frozen shoulder, also known as "primary idiopathic adhesive capsulitis," which is challenging to diagnose and treat. Frozen shoulder is characterized by stiffness and pain in the shoulder joint and is divided into three stages: painful, adhesive, and recovery. Therapeutic options in contemporary medicine include intra articular injections, steroids, NSAIDs, physical therapy, and arthroscopic procedures.^[5] However, none of these treatments are curative. *Avabahuka* and frozen shoulder may coexist with all the symptoms and indicators. Ayurvedic texts prescribe *Agnikarma* as one of the different techniques to treat *Avbahuka*, which

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results from *Dhatukshayajanya vata prakopa*. This article aims to evaluate the efficacy of *Agnikarma* in the treatment of frozen shoulder.

Case Report

On March 16, 2023, a 47-year-old man visited the outpatient department (OPD) complaining of discomfort and stiffness in his right shoulder joint, as well as significant restriction in his ability to elevate his shoulder joints upward. No past traumatic incidents or physical injuries emerge. The onset is gradual, beginning with pain and stiffness and progressing to a restriction in the range of motion of the shoulder joints, both actively and passively affecting the right upper limb. Nature is full of pain, which is exacerbated at night. Patient was a teacher who was unable to use the blackboard at school and whose right upper limb was prohibited from moving upward, making it impossible for him to do even simple household duties. There was a history of receiving 15 days of treatment for frozen shoulder from a private orthopedic specialist without any improvement.

General Examination

Vital Examination shows no abnormality.

Systemic Examination – No any significant abnormality found.

Clinical Examination of Right Shoulder Joint

- Muscle Power- 5/5 in both upper & lower limbs
- Muscle tone – Normal
- Muscular Atrophy – Not present
- Swelling – Absent
- Discoloration – Absent
- Stiffness - Present
- Tenderness - Present +++

Restriction of range of right shoulder movements

- Adduction- 20°
- Abduction-60°
- Flexion – 60°
- Extension -20°
- Rotation of shoulder right shoulder joint – unable to perform due to pain and stiffness.

Investigation

X-Ray Impression: Degeneration of collagen in sub synovial layer of shoulder joint.

Case management was initiated after taking informed written consent from the patient for the therapeutic procedure and publication purpose both. The patient was treated in serial manner of procedures and oral medicaments including *Pachana Anulomana* (regularize the digestion and motion of *Dosha*) *Shothahara* (anti-inflammatory) medicines and *Pathya Ahara* (therapeutic diet regimen) as systemic management for consecutive 28 days and *Agnikarma* by *Panchadahatu Shalaka* for 28 days on 7 days interval periodically.

Intervention

After obtaining the patient's informed written consent for the *Agnikarma* therapy procedure, case management was started. The patient received treatment in a sequential fashion using various oral medications and procedures, such as *Shothahara* (anti-inflammatory medications), *Pathya Ahara* (therapeutic diet regimen) and *Agnikarma*^[6] (performed by *Panchadahatu Shalaka*) for 28 days in three consecutive weeks at intervals of seven days.

Procedure of Agnikarma

Agnikarma was carried out following the receipt of written informed consent. Tender spots were marked and the affected region was cleaned with a piece of sterile gauze and betadine. *Samyak twak dagdha*, a therapeutic superficial skin burn, was performed by applying many spots (*Bindu Agnikarma*) made of red hot *Pancha dhatu shalaka* to areas that were tender. *Shatadouta Grita*, or ghee, was applied immediately after each dot was formed and continued to be applied throughout the process. Proper precautions were taken to prevent *Asamyak dagdha vrana*, or burns that are in between too deep and too superficial. The burn areas were sprinkled with *Haridra* powder after the procedure at intervals of seven days, the entire process was carried out four times. The patient was instructed to apply the paste made of *Shatadouta Grita* and *Haridra* powder twice. During the treatment and follow-up phase, restrictions were placed on diet and activities that aggravated the *Vata dosha*, also known as *Vata vardhak ahara-vihar* followed by oral medications (Table. No.1).

Table 1: Agnikarma & Medicine Chart

S.No	Date	Procedure	Medicine	Dose
1	19/03/2023	<i>Agnikarma</i>	Caps. Flexy	1 cap thrice/day
2	25/03/2023	<i>Agnikarma</i>	<i>Kaishora Guggulu</i>	1 tab thrice/day
3	02/04/2023	<i>Agnikarma</i>	<i>Dashamoola Khada</i>	15 ml thrice/day
4	08/04/2023	<i>Agnikarma</i>	--	--



DISCUSSION AND RESULTS

Avbahuka and frozen shoulder might coexist with all the symptoms and indicators. *Agnikarma* is thought to be the best parasurgical therapy to balance the vitiated *Vata* and *Kapha doshas*, which cause *Avabhauka* (frozen shoulder). *Agni* has the qualities of *Usnaguna*, *Thikhsna*, *Laghu*, and *Sukhsma*. It influences both the *Vata* and the *kapha doshas*. Through its *Usna* and *Tikhsnaguna* on *Vata*, and its *Laghu*, *Sukhsma*, *Tikhsna*, and *Usnaguna* on *Kaphadosa*, it works. The patient was prescribed oral drugs for *Vata kapha* and *Shola hara* based on the involvement of the *Doshas*. Pain and stiffness were reduced *Agnikarma*. As table No. 2 illustrates, there was highly significant improvement in the range of movement overall. *Agnikarma's* various superficial wounds healed in five to seven days. One month after therapy ended, the patient had follow-up visits. The wound's scars disappeared within three to four weeks, and the treatment had no adverse effects.

Table No. 2

S.No	Symptoms	BT	AT
1	Stiffness	Present	Absent
2	Tenderness	Present	Absent
Range of right shoulder movements			
3	Adduction- 0°	20°	90°
4	Abduction-60°	20°	90°
5	Flexion	60°	90°
6	Extension	60°	90°
7	Medial Rotation	Painful	Painless
8	Lateral Rotation	Mild Pain	Painless
9	Circumduction	Not Possible	Possible

Probable Mode of Action

Agnikarma involves applying therapeutic heat to the skin's *Twak Dhatu* and progressively working its way down to deeper structural levels. This would have eventually acted to reduce *Ama Dosha* and *Srotovaigunya*, relieving symptoms of both pains. Both

the epidermis and the muscle motor end plates have pain receptors. Applying heat at roughly 45°C stimulates these pain receptors. The pathways by which temperature and pain signals are sent are nearly parallel, yet they end in the same place. According to

Samson Wright's applied physiology, only the stronger of these two- temperature and pain can be noticed. Oral medications of *Kaishore Guggulu* 500mg, Caps Flexy and *Dhashamoola Khada*^[6] given concurrently with lukewarm water for three weeks may have helped *Agnikarma* balance the *Dosha* and associated pathogenesis in order to achieve the intended outcome.

CONCLUSION

Adhesive capsulitis, commonly known as frozen shoulder, is a prevalent condition that primarily affects individuals in their middle age range. *Agnikarma*, a traditional Ayurveda technique of thermal cauterization, has shown significant improvement in the signs and symptoms of frozen shoulder. The therapy has proven to be safe, simple, and cost-effective, with no observed adverse effects. It is administered on an outpatient basis, eliminating the need for hospitalization. However, the efficacy of *Agnikarma* in treating frozen shoulder requires further investigation with a larger sample size to determine its reliability and effectiveness.

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