

Management of *Abhighatjanya Apabahuka* (Traumatic Frozen shoulder) by Ayurveda: A Case study

Case Report

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Abstract

Apabahuka (Frozen shoulder-FS) is a disease that affects the shoulder joint. Frozen shoulder is also known as Adhesive capsulitis, It is characterized by pain and stiffness in the shoulder joint and upper arm muscles with restricted mobility. *Apabahuka* is a *Vataja vyadhi* associated with *Kapha dosha*. The prevalence of FS varies from 11.4% to 19% in India. FS is commonly found between 40 to 70 years and most common in females. Various modalities are available to treat FS such as nonsteroidal anti-inflammatory drugs, corticosteroids, physiotherapy, ultrasound therapy, arthroscopic surgery or a combination of treatments, still no satisfactory results are found. In the present case report, a 50-year-old female patient consulted with the chief complaints of pain, stiffness, restricted mobility of shoulder joint and pain while lifting weight along with disturbed sleep. Patient was diagnosed as a *Abhighatjanya Apabahuka* (Traumatic FS). The patient was assessed on the basis of Visual Analogue Scale (VAS), Stiffness Gradation, Tenderness Gradation and range of movements using Goniometer. Patient was treated with *Sthanika Abhyanga-Swedana* and internal medication. The outcome of Ayurvedic management of FS was encouraging to reduce subjective and objective parameters.

Keywords: *Apabahuka*, Frozen shoulder, *Abhyanga*, *Patra Pottali sweda*.

Introduction

Apabahuka (Frozen shoulder-FS) is a common ailment that has a negative impact on patient's daily routine activities disturbing the economy of the country due to deranged work force. It is a disease of shoulder joint and explained in *Vatavyadhi Nidana Adhyaya* in *Sushruta Samhita*. *Vatavyadhi* is one among the *Ashitamaha gada*, (1) is itself explanatory, with regard to the consequences caused by *Apabahuka*. The causative factors of *Apabahuka* are *Abhyantara hetu* (intrinsic factors such as *Vata-Kapha dosha Prakopaka Ahara* and *Vihara*) and *Bahya hetu* (extrinsic factor like *Abhigatajanya* i. e. trauma etc) which leads *Vata Prakopa* and gets lodged in shoulder joint leading to *Sira Sankocha* and ultimately causing *Bahupraspandanahara* (loss or impaired movement of shoulder joint). (2) The *Apabahuka* can be correlated with frozen shoulder disease. Frozen shoulder also known as adhesive capsulitis, is a disabling disease of the shoulder causing pain and restricted mobility of the shoulder joint. (3) It is a painful inflammatory process

of the shoulder joint. Patients experience pain and stiffness as well as progressive loss of range of movements. (4) Although, etiology of frozen shoulder is still unclear, the understanding of the pathophysiology recently has improved. Factors associated with adhesive capsulitis include mostly woman over 40 years of age, trauma, diabetes, prolonged immobility, thyroid disease, stroke or myocardial infarction, and autoimmune diseases. Approximately 70% of patients with Adhesive capsulitis are women, and 20% to 30% of those affected subsequently will have Adhesive capsulitis developed in the opposite shoulder. (5) Adhesive capsulitis has an incidence of 3–5% in the general population and up to 20% in those with diabetes. (6)

The American Academy of Orthopedic Surgeons defines adhesive capsulitis as “a condition of varying severity characterized by the gradual development of global limitation of active and passive shoulder motion where radiographic findings other than osteopenia are absent.”

The present case study will explore the efficacy of Ayurvedic treatment in the management of Frozen shoulder which is difficult to cure by many treatment modalities available in contemporary system of medicine. Hence the aim of this case study was management of Frozen shoulder by using various treatments available in Ayurveda to manage *Vatavaydhi*. The *Shamana (Amapachana)*, *Shodhana (Vatanulomana)*, *Patrapindapottali sweda (Kaphavilayana and Vatashamana)* and *Lepa* (to

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remove localized *Ama*) treatment were used and significant relief was observed by this treatment.

quality of her life. Hence, she came to the OPD of *Kayachikitsa* at Parul ayurveda hospital.

Case report

A 50-year-old female patient consulted OPD of Parul ayurveda Hospital, Vadodara, Gujarat with complaints of pain in right shoulder joint leading to difficulty in lifting of weights with right arm and disturbed sleep for 1 month.

History of present illness

A moderately built 50-year-old female housemaker, presented with complaints of pain and difficulty in movement of her right shoulder joint for 1 month but severity was increased since last 10 days. Before 1 month, she met with a road accident-causing pain in the right shoulder joint. For this, she was taken to the hospital where basic investigations like X-ray were done. As X-ray appeared to be normal, she was prescribed with analgesics. Her pain, however, was not subsiding and was increasing with daily routine activities. The severity of her pain was so much that she was unable to sleep properly which was affecting the

Clinical Findings

No known case of any chronic illness like diabetes, hypertension etc. On general examination, the patient was afebrile and her blood pressure, heart rate and respiratory rate was within normal limits. On systematic examination, no abnormality was found in the cardiac, respiratory, and gastro intestinal system. Muscle power was elicited 3/5 in the right upper limb, 5/5 in the left upper limb, and 5/5 in both lower limbs. On Local examination of the right shoulder joint findings were tenderness at the lateral and posterior aspect of the right shoulder joints (+++) on palpation. On inspection, no abnormalities were seen. All Range of motion of the right shoulder joint was painful and restricted. On the goniometer, degrees of abduction and adduction movements were reduced to 45 degrees with pain. Apley scratch test and drop arm test were positive. With the above findings and observations, we diagnosed it as a case of *Abhigatajanya Apabahuka* (Adhesive capsulitis). X ray shoulder joint was done to rule out other pathology and it was normal. The patient was admitted to *Kayachikitsa* IPD for further management.

Table 1: Treatment Plan adopted

Sn.	Treatment Modalities	Intervention	Frequency	Anupana	Mode of administration
1st day of treatment (03/03/2022)					
1	<i>Vatanulomana</i>	<i>Eranda Taila</i> (Castor oil)	40 ml at night	Mix with 40 ml Lukewarm water	Orally
2nd to 8th day of treatments (04/03/2022 TO 10/03/2022)					
2	<i>Stahnik Abhyanga</i>	<i>Murivenna Taila</i>	Once in a day	---	Local application
3	<i>Sthanika Sweda</i>	<i>Patra Pinda Sweda</i>	Once in a day	---	Local fomentation
4	<i>Shamana Aushadhi</i>	<i>Mahayogaraja Guggulu</i>	500 mg Twice a day	Lukewarm water	Orally
5	<i>Shamana Aushadhi</i>	<i>Rasnaerandadi Kashya</i>	15 ml twice a day Before food	40 ml Lukewarm water	Orally
6	<i>Lepa</i>	<i>Rasna, Shunthi, Pushkarmula, Deavdaru, Manjistha</i>	Once in a day	Mix with lukewarm water	Make into a paste and apply it locally
9th day onwards treatment (for 14 days)					
7	<i>Shamana</i>	<i>Mahayogaraja Guggulu</i>	500 mg Twice a day	Lukewarm water	Orally
8	<i>Shamana</i>	<i>Rasnaerandadi Kashaya</i>	15 ml twice a day on Before food	40 ml Lukewarm water	Orally

Results

The result of treatment was assessed on the basis of Visual Analogue Scale (VAS), Stiffness, Tenderness Gradation, and Range of Movements using a Goniometer. Before and after treatments were assessed and it is described in Figure1, 2 and 3.

Discussion

Apabahuka is the one among the *Vatavyadhi* which is explained in Ayurveda classics, caused by

kupita Vata dosha affecting the *Amsa-Pradesha* and does the *Akunchana* of *Sira* ultimately leading to *Bahupraspandanahara* (Difficulty in the movement of the shoulder joint). In the present study with the help of the above clinical findings and causative factors, it was diagnosed as *Abhigatajanya Apabahuka* (Traumatic frozen shoulder) and in modern science, it can be correlated with Adhesive capsulitis.

The exact pathophysiology of adhesive capsulitis is unknown. The most commonly accepted hypothesis

Figure 1: Visual Analogue Scale Assessment

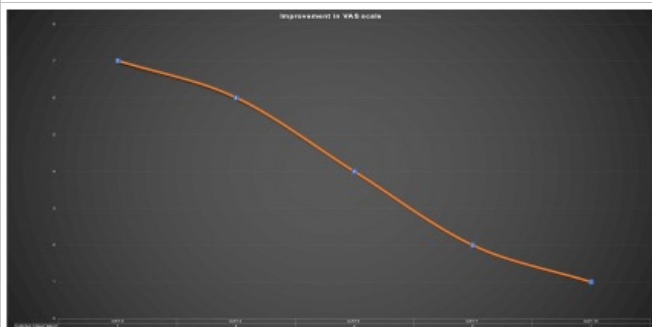


Figure 2: Subjective Parameters Assessment

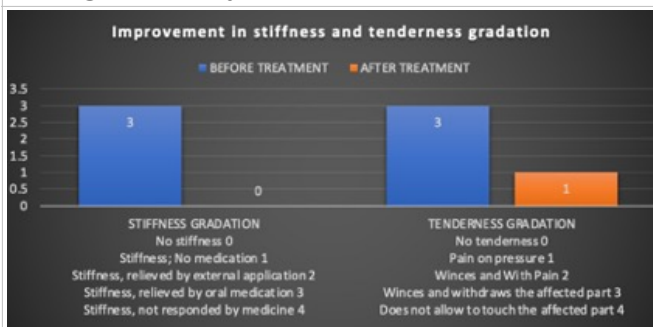


Table 2: Objective Parameters Assessment

Goniometer Assessment

Criteria	Before Treatment	After Treatment
Abduction (0-170°)	Painful 50°	130°
Adduction (0-50°)	30°	45°
Forward Flexion (0-165°)	Painful 45°	130°
Backward extension (0-60°)	Painful 20°	45°

Figure 3: Assessment on Goniometer



states that inflammation initially occurs within the joint capsule and synovial fluid. The inflammation is followed by reactive fibrosis and adhesions of the synovial lining of the joint. The initial inflammation of the capsule leads to pain, and later the capsular fibrosis and adhesions are formed leading to a decreased range of motion in the joint. (7) Frozen shoulder often progresses in three stages: the freezing (painful), frozen (adhesive) and thawing phases. In the freezing stage, which lasts about 2–9 months, there is a gradual onset of diffuse, severe shoulder pain that typically worsens at night. The pain will begin to subside during the frozen stage with a characteristic progressive loss of glenohumeral flexion, abduction, internal rotation and external rotation. This stage can last for 4–12 months. During the thawing stage, the patient experiences a gradual return of range of motion that takes about 5–26 months to complete. (8, 9, 10).

The goal of treatment in ACS is to restore function and manage symptoms. The choice of treatment can vary with patient factors, stage at presentation and clinician preferences. Nonsurgical or conservative management is the preferred choice of treatment, with most patients usually improving in 6–18 months. (11) Conservative treatment options include analgesics, oral steroids, physical therapies, hydro dilatation, suprascapular nerve block (SNB) and intra-articular steroid or sodium hyaluronate injections. Surgical treatment is offered to patients with persistent symptoms despite conservative management; strategies include manipulation under anesthesia (MUA), arthroscopic release and open release. (12) There is still no strong evidence to unambiguously choose one type of treatment over another.

In Ayurveda, the management is focused on *Vataprakopshamaka* through *Panchakarma* and internal medication. For the *Sampraptivighatana* (to break the pathology) of *Apabahuka* the medicines should possess a *Shophahara* (Anti-inflammatory), *Vedanashamaka* (Analgesic), *Dhatuposhaka* (Nourishes to tissue), *Snigdha* (Unctuous) and *Vatakaphahara* properties. *Murivenna Taila* is the mixture of eight distinct drugs with coconut oil serving as the base. Majority of these drugs having *Vatakaphahara* properties, which reduces the pain and stiffness. *Tambula* (*Piper betle* Linn) and *Kumari* (*Aloe Vera Tourn ex* Linn) also have *Pittashamaka* properties, which reduces inflammation, alleviate pain and tenderness. (13, 14, 15)

Patra Pottali Sweda given here, helps in reducing pain, stiffness and swelling of the affected joint. It's mainly due to *Patra* having *Vatahara* and *shothahara* (~anti-inflammatory) properties as well as *Ushna-Suksham* (hot-penetrating) *Guna* of *Swedana Karma* (sudation therapy) leading to reduction in *shoola*, (pain) *sthamba* (stiffness) and *Bahuoraspanana*. (impaired shoulder movement) (16) *Mahayogaraja Guggulu* is a compound Ayurvedic formulation comprising powders of herbal ingredients processed with *Guggulu* (oleoresin of *Commiphora wightii* (Arn.)*Bhandari*)The main therapeutic action as *vedanasthapaka* and *shothahara* which is attributed by the presence of *Guggulu* as the major ingredient. (17) *Rasnaerandadi Kashayam* is having *Trikasoolahara*, *Shulaprashamana* and *Shophagna* properties which was given as an *Anupana* for *Mahayograj Guggulu*. (18) *Sthanika lepa* (Local Paste) was administered on the Cervical region to the upper limb (Right) to provide relief from pain and Stiffness. The herbal ingredients used in *lepa* possess *Vata* pacifying, *Shothahara*, and *Vedanashamaka* properties.

Subjective parameters assessment was done by VAS (Visual Analogue Scale), suggestive of 7 score before treatment which came down to 1 after treatment. (Figure 1) Objective parameters was assessed with the help of Goniometer showing the marked improvement. All the restricted and painful movements became normal and painless. (Table 2 and Figure 3) 90% relief was noted in subjective as well as objective parameters within 8 days of treatment. Remaining 10% relief was noted by continuing 14 days of *Shamana Aushadhi*.

Conclusion

In this case of FS, management was done by *Sthanika Abhyanga-Swedana* and *Shamana Aushadhi*. Treatment showed highly significant relief in pain, stiffness, and restricted painful movement of the right shoulder. The FS is effectively managed by Ayurvedic treatment principles of *Vatanulomana*, *Sthanika Abhyanga*, *Swedana*, *Lepa* and Oral medications to break the *Vatakaphaja samprapti* of *Apabahuka*. Study should be carried out on a number of patients to extrapolate the same line of treatment for *Apabahuka*.

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Conflict of Interest: None to declare.

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