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MANAGEMENT OF FROZEN SHOULDER (AVABAHUKA) BY *AGNIKARMA* WITH *CHITRAKA MOOLA* (PLUMBAGO ZEYLINICA) - A CASE STUDY

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ABSTRACT

Frozen shoulder is limiting function of the Glenohumeral joint. In this condition shoulder capsule become adherent to the humeral head that is why it also termed as "adhesive capsulitis".[1,2] It is disabling disease of shoulder causing pain and restricted mobility of shoulder joint.[3,4] It is characterised by severe pain in shoulder and restricted movement both active and passive. Although the disease is self-limiting it takes a long time for complete recovery ranging from few months to 3-4 years. Most of the patients get relief in due course of time with this as the disease is self-limiting but some may not respond as doing physiotherapy is painful job and effect of NSAID is also limited in initial phase. Such patients need to be treated with oral and intra – articular steroids injections. Some patient doesn't respond at all to these conservative treatments and needs surgical intervention involving manipulation under anaesthesia, arthroscopic capsular release and hydrothiolation.[5,6] This is a case study of a patient effectively treated with *Agnikarma* by *Chitraka* moola (Plumbago zeylanica). This case illustrates the use of ayurvedic treatment measures in non-responding cases of frozen shoulder

KEYWORDS: *Agnikarma*, *Chitraka moola*, Frozen shoulder.

INTRODUCTION

Frozen shoulder clinically known as adhesive capsulitis[4], is characterized by pain, stiffness,

and limited function of the glenohumeral joint, which adversely affects the entire upper extremity. In this condition shoulder capsule becomes adherent to the humeral head that's why it is termed as "Adhesive capsulitis". The exact cause of this pathology remains elusive. There are two types identified are primary (idiopathic) and secondary. Idiopathic adhesive capsulitis result from a chronic inflammatory response with fibroblastic proliferation, which may actually be an abnormal response from the immune system. Secondary adhesive capsulitis occurs after a shoulder injury or surgery, or may be associated with another condition such as diabetes, rotator cuff injury cerebrovascular accident. There are two principal characteristics of frozen shoulder-pain and contracture (loss of range of movement). Pain associated with it is progressive and initially felt mostly at night. The contracture of the shoulder ligaments decreases the volume of the capsule, thus limiting range of motion.[7] The most common limitation in range of motion are flexion, abduction, and external rotation.[8]

On the basis of sign & symptoms this disease can be closely correlated with *Avabahuka.*[9,10] *Avabahuka* is *vata-kapha* dominated disease. In this condition, *Vata* is localized in the shoulder region, getting aggravated, dries up the bindings (ligaments) of the shoulders, constricts the *siras* and produces *Avabahuka*. *Agnikarma* is considered as best therapy to pacify *vata-kapha doshas*. Due to its *Ushana*, *Sukshma*, *Ashukari guna*. Therefore, *vata-kapha* pacifying management was planned for the present study.

Agnikarma (Para-surgical procedure) by the *Chitraka moola*[11,12,13] in the management of frozen Shoulder is a new thrust area. *Chitraka moola* shows the action *Shoth- har*, *kapha-vatahar*, *shul*-har and Anti-inflammatory activity, and also in the Ayurvedic literature description of *Agni karma*[14,15,16] as Para-surgical procedure is a unique therapeutic procedure because of its preventive, primitive, prophylactic properties. With reference to Sushruta Samhita, Agni karma is advocated in joint disorders because of *ushna guna* and *vata-kapha* subsiding property of Agni. In this study *Chitraka moola* were used for *Agnikarma*, hence a study was proposed and attempt was made to evaluate Agni *karma* and its effect on *Avabhahuka.*[17,18,19]

AIMS AND OBJECTIVE

Aim

To Study the effect of *Chitraka moola Agnikarma* in Frozen shoulder.

Objective

To study the efficacy of *Chitraka moola Agnikarma* in the management of frozen shoulder (*Avabahuka*).

METHODOLOGY

Case report

A male patient age of 68 year visited to OPD in our hospital with the complaints of pain and stiffness of left shoulder joint along with severe restriction of upward elevation of shoulder joints. Pain is constant in nature; He is unable to perform even small tasks due to restricted upward movement of limb. There was a history of treatment for frozen shoulder for last 3 months with no significant relief.

CLINICAL EXAMINATION

Dashvidha Pariksha

1. *Prakriti:Vata Pittaja,*
2. *Vikriti: Tridoshaja*
3. *Sara: Avara*
4. *Samhana: Avara*
5. *Ahara Shakti: Madham*
6. *Vyayam Shakti: Avara*
7. *Bala: Madhyam*
8. *Satyama: Madhyam*
9. *Satva: Madhyam*
10. *Jarana Shakti: Avara*

General Physical Examination

B.P.=130/80mmHg

Pallor –Absent Icterus –Absent Clubbing –Absent

RS: - B/L equal air entry with no added sound CVS: S1 & S2 Normal.

CNS: Conscious and well Oriented P/A: - Soft & non-tender

P/R = 74/min

Muscle Power- 5/5 in both Upper & lower limb Muscle tone –Normal.

Muscular atrophy – Not present.

Musculoskeletal System- left Shoulder joint examination Swelling -mild Tenderness- +++, Restriction of range of movement –Present, rotation was painful

Investigation: - X-ray left shoulder joint suggests no any significant bony abnormality.

Procedure of *Agnikarma*

After taking written informed consent, *Agnikarma* was done by *Chitraka* moola. The affected

part was clean up with betadine. Agnikarma done by making multiple dots (Bindu Agnikarma) with Chitraka moola covering Pain points. Appropriate precaution was taken not to produce asamyak dagdha vrana.[20] After completion of the procedure there is no Agnikarma wound seen. The entire procedure was repeated three times at the interval of 7 days.

DISCUSSION

Frozen shoulder is disabling disease of shoulder and is self-limiting, but recovery takes much longer time up to 3-4 yrs. Many treatment options are available for management of frozen shoulder still there is no consensus in literature regarding which therapeutic option is superior mostly because of lack of high level of evidence. As the recovery period is much longer and initial stage of freezing is very painful some alternative treatment like *ayurveda* is very beneficial. *Agnikarma* is unique procedure described in *ayurveda* for instant relief from pain. It has been mentioned in the Ayurveda literature (*Shushtrut Samhita*) diseases cured by *agnikarma* never recur.[14,15] *Agnikarma* is indicated in all painful condition which are due to *vata* and *pitta*. Frozen shoulder can be correlated with *Avabahuk* as per *ayurveda*. *Agnikarma* is indicated in *avabahuka* (i.e.frozen shoulder). *Vata* and *kapha* both are involved in the pathology of frozen shoulder. *Chitraka moola Agnikarma* immediately results in pacification of *vata* and *kapha*. This gives immediate improvement in symptoms of frozen shoulder. Like there is significant reduction in pain and stiffness resulting in increasing range of mobility. In present case patient got 70% relief in pain on first day immediately after *agnikarma* but from 2nd day pain increased; however, pain was less than previous pain as it was before. *Chitraka* moola *agnikarma*. *Chitraka moola* heated till it became warm when it was applied to most tender spot it must have reached to the dipper pathological part of shoulder joint (i.e., joint capsule) there by reliving inflammation and hence resulted in reduction of pain. As the pain was reduced patient himself felt confident, this resulted in improvement in range of movement. Application of *Chitraka moola* itself reduces pain. This is probable mode of action of *Chitraka* moola *agnikarma* procedure in reliving the symptoms, this fact influences theories in pain research, the gate-control theory[21,22], published almost 50 years ago. Simply, this theory states that the transmission of pain from the peripheral nervous system is subjected to modulation in the spinal cord. The major cell type controlled by this gate are the wide dynamic range (WDR) neurons of the dorsal horn of the spinal cord, the region to which sensory information is conveyed. One of the elements of this modulation is the input from large sensory nerve fibers activated by touch. Through an inhibitory circuit in the spinal cord,

these fibers can inhibit the firing of WDR neurons and "closed the gate", therefore inhibiting the transmission of nociceptive inputs. This results in reducing pain. *Chitraka* moola *Agnikarma* works on same principle. *Agnikarma* results in dilatation of t5local capillaries which results in improvement of blood supply to the part this results in sweeping away the inflammatory substances. However, if the disease is chronic, inflammation may not subside in single sitting. Aim of treatment in frozen shoulder is to reduce pain and to increase range of mobility. This can be achieved by reducing inflammation. *Agnikarma* is a type of mild fomentation this results in reduction in inflammation. *Chitraka moola* itself has an anti-inflammatory activity. Patient got sustained relief in pain. As the pain was reduced patient was able to do gentle stretching exercises. Gentle stretching exercises within the limit of pain achieves more mobility than aggressive stretching exercise.It results in pacification of vata. *Plumbago zeylanica*, it has ushna virya (i.e., hot in action). Vata is having sheeta virya (having cold action). Hot property of *Chitraka moola* acts opposite to cold property of *vata* and *kapha*. It can be used in various condition where *vata* and *kapha* is involved. In the present case both pain, stiffness was due to mainly *vata* and *kapha*, Vitiation of *vata* and *kapha* are the aetiological factors in frozen shoulder so *Chitraka moola* works better in this ailment. Thus, in present case we got excellent result by *Chitraka moola agnikarma*, as *vata* and *kapha* are the causative factors, this therapy resulted in pacification of *vata* and *kapha* thereby giving significant relief in symptoms.

RESULT

Frozen Shoulder (*Avabhauka*) is produced by vitiated *vata dosha* with *anubhandhan* of *kapha*, so *Agnikarma* is considered as best Para surgical therapy to pacify these *doshas*. The properties of *Agni* are *Sukhsma*, *Laghu*, *Thikshna* and *Usna guna*. It work on both *vata* and *kapha dosha* It works on *vata* by its *usna* and *tikhsna guna* and on the *kapha dosha* by *laghu*, *sukhsma*, *tikhsna* and *ushnaguna*. After the treatment Pain and stiffness was decreased. Patient visited for follow up for 1 month after completion of treatment and there was no adverse effect of the treatment noted.

Fig.1. Before Treatment

Fig.2.After 1st setting of therapy

Fig.3.After 2nd setting of therapy

Fig.4. Agnikarma by Chitraka moola

Mode of Action of Agnikarma

Frozen Shoulder (*Avbhauka*) is produced by vitiated *vata dosha* with *anubandha* of *kapha*, so *Agnikarma* is considered as best therapy to pacify these *doshas*. Due to *Ushna*, *Sukshma*, *Ashukari guna* it pacifies vitiated *vata-kap* ha *dosha*.

Pain receptors are located in the skin and the motor end plates of the muscles. These pain receptors are stimulated by application of heat. Pathway for transmission of thermal signals and pain signals are almost parallel, but terminate at same area. So out of these two i.e. thermal and pain only the stronger one can be felt, so on therapeutic application of heat, relief of pain can be explained by complete exclusion of pain impulses by heat impulses due to occupying a final pathway.

CONCLUSION

Frozen shoulder is one of the most common problems which effect mostly in middle age group of patients. After Agni karma there is relief of signs and symptoms of frozen shoulder. Local tenderness and stiffness are decreased markedly. No adverse effect was observed during the course of treatment. The treatment applied was simple, economical and required no hospitalization and could be done at OPD level.

This single case study demonstrates that *Agnikarma* Shows good result in Patient who do not respond to conservative treatment.

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