



EFFICACY OF ADVANCED AGNIKARMA CHIKITASA (TAMRA SHALAKA WITH SNEH PICHU) ON FROZEN SHOULDER

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ABSTRACT

Frozen shoulder, also known as Adhesive capsulitis causes a significant loss in range of motion typically occurs in cycle of 3 stages. It predominantly occurs in females in their fifties. In textual references of Ayurveda Frozen Shoulder is closely related to *Avabahuka*. In this condition *Vata* is localized in the shoulder region, getting aggravated, dries up the bindings (ligaments) of the shoulders, constricts the *siras* present there and causes *Avabahuka*. Modern medicinal science plays very less role in the management of Frozen Shoulder. In Ayurveda various para-surgical methods were mentioned for diseases of *Vata* and *Kapha*, in which Agni karma is one of them, that has been recommended in various musculoskeletal disorders. Hence a case study was conducted to evaluate the efficacy Advanced *Agnikarma Chikitsa* in frozen shoulder with out skin burn and post burn scar.

KEYWORDS: *Shushrut Samhita*, *Agnikarma*, *Sneh pichu*, No skin burn and burn scar, Frozen Shoulder, Cost effective, OPD procedure.

INTRODUCTION

The term “frozen shoulder” was first introduced in 1934 by Codman. Long before Codman, in 1872, the same condition had already been labelled “peri-arthritis” by Duplay. In 1945 Naviesar coined the term “adhesive capsulitis” and still in use.^[1]

According to Ayurveda AVABAHUK (Frozen Shoulder) is considered a disease of Musculoskeletal disorder that usually affects the shoulder joint (*amsasandhi*) and is produced by the *Vatadosha*. *Amsashosha* can be considered as the preliminary stage of the *Avabahuk* where loss or dryness of the *Shleshaka Kapha* from the shoulder joint occurs. The next stage, of AVABAHUK, occurs due to the loss of *Shleshaka Kapha* and symptoms like shool during movement, restricted movement, and so on, are manifested.^[2] In modern science *Avabahuk* is like as frozen shoulder Frozen shoulder is the common name for adhesive capsulitis. Which is a shoulder condition that limits your range of motion. When the tissues in your shoulder joint become thicker and tighter, scar tissue develops over time. As a result, your shoulder joint doesn't have enough space to rotate properly. Common symptoms include swelling, pain, and stiffness. The

prevalence of Frozen Shoulder is estimated to be 2 to 5% of the general population. A meta analysis by Zreik reported a 13.4% overall mean prevalence of Frozen shoulder in patients with diabetes mellitus. Frozen Shoulder usually affects patients aged 40 to 70 years and it is more often in women (especially in post-menopausal women) than in men.^[3]

Stage one: The “freezing” or painful stage, which may last from six weeks to nine months, & in which the patient has a slow onset of pain. As the pain worsens, the shoulder loses motion.

Stage two: The “frozen” or adhesive stage is marked by slow improvement in pain but the stiffness remains. This stage generally lasts from four to nine months.

Stage three: The “thawing” or recovery when shoulder motion slowly returns towards normal. This generally lasts from 5 to 26 months. Management of adhesive capsulitis by contemporary medicine mainly includes management of pain with analgesics and NSAIDs or sometime surgery is required. As far as modern medical science is concerned no promising management is available in Frozen Shoulder and when the disease condition become worse steroid therapy is advised which

have more adverse effects and high economical cost. On the basis of sign & symptoms this disease can be correlated with *Avabahuka* in ayurvedic texts. *Avabhauka* is *vatakapha* dominated disease. *Avbhauka* (Frozen Shoulder) is produced by vitiated *vata dosha* with *anubhandha* of *kapha*. *Agnikarma* is considered as best therapy to pacify these doshas due to its *Ushan*, *Sukshma*, *Ashukari guna*. Therefore *vatakapha* pacifying management was planned for the present case.

According *sushrut samhita* musculoskeletal disease it can be treated by *Agnikarma*. *Agnikarma* is a thermal para surgical procedure in which AGNI is used for intentional heating as therapeutic purpose. It is highly potential procedure than the *Bhaishaja*, *Shashtra* and *ksharkarma*. *Agnikarma* indicated for various *Vata kapha* disorders.⁽⁴⁾

Many Patients fear about *Agnikarma* procedure, skin burn and burn scar. Advanced technic of *Agnikarma* where *Sneh Pichu* avoid skin burn during *Agnikarma* and no burn scar after treatment.

Need for study

If drugs such as nonsteroidal anti-inflammatory drugs are used for longer duration in chronic musculoskeletal disorders, they can cause potential side effects on the body hence there is an emerging need to search for an efficient, safe, and cost-effective option for the same.

MATERIALS AND METHODS

Aim

To evaluate the clinical efficacy of *Agnikarma* with *tamra shalaka* and *Sneh Pichu* in *Avabahuk* w.s.r to Frozen shoulder.

CRITERIA FOR SELECTION OF PATIENTS

Inclusion criteria

- ✓ Patients having textual symptoms of *Avabahuk* (Frozen Shoulder).
- ✓ *Agnikarma Arha* for *Agnikarma* procedure
- ✓ Age: 25 to 60Years.
- ✓ Patients of all sexes.
- ✓ Patient who will give written consent.

Exclusion criteria

- ✓ Patients having Congenital Structural Deformities and other joints deformities or diseases which are not related to *Avabahuk* / Frozen shoulder.
- ✓ History of trauma
- ✓ Fracture of shoulder joint, and needs surgical care will be excluded.
- ✓ *Avabahuk* /Frozen Shoulder associated with known case of Cardiac disease, Pulmonary TB, Pregnancy, Paralysis, HIV, Neurological disorder, cervical spondylosis.
- ✓ *Agnikarma Anarha* for *Agnikarma* procedure.^[5]
- ✓ Patients taking other medicine or treatment for *Avbahuka* / Frozen Shoulder.
- ✓ Patient who is not willing to give consent.

Instrument

- *Tamrashalaka* for *Agnikarma* (Copper Rod)
- *Sneh pichu* (sesame oil soaked cotton piece)
- Goniometer for Measure ROM^[6]

Agnikarma Procedure

Ask to patient for Movement of Affected shoulder joint And mark most tender and painful points (Pain trigger point). Point may be single or multiple in affected shoulder region. Measure the Affected Shoulder joint Range of motion with Goniometer. Cover the Pain trigger point with *sneh pichu* and do *agnikarma* with tip of red hot *tamra shalaka* over the *sneh pichu* i.e no direct contact with skin. *Agnikarma* duration for each point not more than 1 sec and rapidly touches all the marked points. Instantly after *Agnikarma* procedure ask to patient for shoulder movements as well as help the patient to do complete shoulder movements quickly for next 5 minute. Apply Aloe vera pulp on *Agnikarma* point for Cooling effect.

Sneh pichu

Sneh pichu is made by cotton in circular or square manner. Circular *Sneh pichu* is easy to made through cotton. Ideal Circular *Sneh pichu* dimensions as thickness between 1mm to 3mm And diameter between 25mm to 40mm.



CASE REPORT

A 42 year male patient visited In Shalya Tantra OPD of Shree Saptshrungi Ayurved college and hospital, Nashik with the complaints of pain and stiffness at right shoulder joint along with severe restriction movement of shoulder joints. There is no history of any trauma or physical injury. Onset is insidious starting with pain & stiffness that progress in restriction of shoulder joints movement both active as well as passive movements of upper limb are restricted. Pain is constant in nature that become worst at night, & when weather is colder. He is unable to perform even small tasks due to restricted upward movement of limb. He can sleep well due to pain. There was a history of treatment for frozen shoulder Last three month with no significant relief.

Agnikarma three setting done on patient. On 0th day, 1st follow-up on 7th day, 2nd follow-up on 14th day. Advise

Right Shoulder ROM Restriction

Movement of Shoulder	Before treatment	After treatment	
		1 st follow-up (day 7th)	2 nd follow-up (Day 14th)
Abduction	70°	95°	110°
Adduction	0° (only pain)	0°	0°
Flexion	85°	113°	120°
Extension	10°	15°	15°
Pain	+++	+	+ (Pain while weight lifting)
Stiffness	+++	++	+

Probable mode of action of Agnikarma^[7]

Agni possesses Ushna, Tikshna, Sukshma and Aashukari Gunas, which are opposite to Vata and anti Kapha properties. Physical heat from red hot Shalaka is transferred as therapeutic heat to Twakdhatu From this therapeutic heat acts in three ways. First, due to Ushna,

to patient daily shoulder joint normal exercise like Pendulum stretch, towel stretch, outward stretch, inward stretch, 360° shoulder rotation.

General Physical Examination

- B.P.=130/80mmHg
- P/R = 74/min.

Systemic Examination

- CVS: S1 S2 Normal. Chest: B/L equal air entry with no added sound
- CNS: Higher function normal, with no loss of memory, no disturbance of speech etc.
- RS: Air Entry bilateral Equal and clear, No Abnormal Airway sounds.
- Per Abdomen - soft, non-tender.

Tikshna, Sukshma, Ashukari Guna it removes the Srotavarodha, pacifies the vitiated Vata and Kapha Dosha and maintains their equilibrium. Secondly, it increases the Rasa Rakta Samvahana (blood circulation) to affected site. The excess blood circulation to the affected part flushes away the pain producing substances

and patient gets relief from symptoms. Third, therapeutic heat increases the Dhatwagni, so metabolism of Dhatu becomes proper and digests the Amadosha from the affected site and promotes proper nutrition from Purva Dhatu. In this way, Asthi and Majja Dhatu become more stable. Thus result is precipitated in the form of relief from all symptoms of Frozen Shoulder. Further it can be endorsed that the therapeutic heat goes to the deeper tissue like Mamsa Dhatu and neutralizes the Sheeta Guna of Vata and Kapha Dosha and in this way vitiated Doshas come to the phase of equilibrium and patients got relief from the symptoms.

Thermotherapy

In the process of Agnikarma, transferring of therapeutic heat to twak dhatu (skin) and gradually to deeper structure which would have acted eventually to pacify ama dosha and *srotovagunya* which gives relief in symptoms of *shoth* and *shool*. Pain receptors are located in the skin and the motor end plates of the muscles. These pain receptors are stimulated by application of heat at about 45°C. 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 (Samson Wright's applied physiology), 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 common pathway

The use of local heat (thermotherapy) may provide relief of pain and painful muscle spasm by acceleration of metabolic processes whereby the concentration of pain inducing toxic metabolites is reduced. This is accomplished primarily by an increase in local circulation. Acceleration of the inflammatory response to resolution may initially exacerbate discomfort but will shorten the time course to resolution of inflammation. Thermotherapy is generally soothing and psychologically relaxing, there by favourably modifying emotional response to pain and further reducing painful muscle spasm.^[8] Synovial fluid viscosity of joints is known to decrease with increasing temperature. It has been postulated that the joint stiffness may be related to increased synovial fluid viscosity. Relief of joint stiffness may be provided with thermotherapy by a reduction in synovial fluid viscosity.^[9]

RESULTS

Avbhauka (Frozen Shoulder) is produced by vitiated vata dosha with *anubhandha* of kapha, so Agnikarma is considered as best Parasurgical therapy to pacify these doshas. The properties of agni are sukhsma, laghu, thikhsna and usnaguna. It works on both vata and kapha dosa. It works on vata by its usna and tikhsnaguna and on the kaphadosa by laghu, sukhsma, tikhsna and usnaguna. After the treatment Pain & stiffness was decreased. The overall increment in the range of movement was as follows: Abduction 110° (+40° increment), Adduction – No pain while movement,

flexion-120°(+35° increment), Extension 15°(+5° increment), external and internal rotation - moderate improvement. Superficial wounds not appear because of Sneh pichu and there was no adverse effect noted of the treatment.

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 effects were observed during the course of treatment. The treatment applied was simple, economical and required no hospitalization and could be done at OPD level. Advanced agnikarma procedure show nearly similar effect to ancient Agnikarma procedure benefit is that there is no burn scar with Advanced Agnikarma procedure. Advanced Agnikarma procedure can use in Diabetic patient because there is no skin burn. Detailed study should be conducted on a large sample to evaluate the efficacy of Advanced Agnikarma in the management of Frozen Shoulder.



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