

Ayurvedic Management of Frozen Shoulder (*Apabahuk*)- A Case Report

Case Report

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Abstract

Background: *Apabahuk* is disease considered under *vata vaydhi* which can be compared with frozen shoulder considering similarity of signs and symptoms of disease. It is estimated that Between 16-26% of shoulder pain cases are self-reported. It's the third commonest explanation for musculoskeletal consultation in medical care. Severely restricted movements of shoulder joint and progressive loss of both active and passive range of movements are the characteristics of frozen shoulder. In modern medicine several anti-inflammatory analgesics are getting used. Some major exercises advised and a few local applications of analgesic ointments is employed. But no such effective results found. **Case:** A 53 year male patient consulted with complaints of pain and restricted painful movements of left shoulder joint associated with tremor, neck pain and reduced strength in the left-hand **Conclusion:** Patient was diagnosed as *Apabahuk* (frozen shoulder) and treated with *panchakarma* therapies and oral herbal medicines. The encouraging improvement was observed in both subjective and objective parameters.

Key Words: *Apabahuk*, Anti-inflammatory, *Panchakarma*.

Introduction

Apabahuka is a *Vatavyadhi*. It includes words, "Apa" and "Vahuka"(1). The very phrase 'Apa' means 'Viyoga' 'Vikrutau,' this means that disorder or separation. And the very phrase 'Vahuka' has the subsequent meaning: 'Vahu' means the limb, that's one of the *sadanga*'s. According to Sanskrit literature, the phrase *Apabahuka* means horrific stiffness and muscle spasm in arm (2). It is an ailment as a result of *kupita vata dosa* localizing across the *amsa pradesa*, which reasons the *shosana* of *amsa sandhi*, leads to *akunchana* of *sira* on the site and giving rise to *bahu-praspanana haratwam* (3). It is an ailment that commonly have an effect on the *amsa sandhi* (shoulder joint). It may be taken into consideration because the initial stage, wherein loss or dryness of *shleshaka kapha* from *amsa sandhi* happens. The subsequent stage, that is, *apabahuka* happens because of the lack of *shleshmka kapha* and signs like *amsashoola* (shoulder ache) all through movements, restrained motion and so forth are manifested. Two varieties of pathophysiology have been defined for *amsa shosha* in classics. Those are *suddha vatajanya* (*dhatukshaya janya*) and *vatakapaha janya*(4). The symptoms of *apabahuka* like *shoola*, *stabdata* and *bahupraspanan haratwam* are equal as that of the signs of frozen shoulder.

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Frozen shoulder affects patient aged 35 years to 70 years and it's estimated that 3% of individuals develop the disease over their lifetime. It is estimated that Between 16 -26% of shoulder pain cases are self-reported. It's the third commonest explanation for musculoskeletal consultation in medical care. Males tend to be affected less frequently than female and there's predilection for race (5). In modern medicine several anti-inflammatory analgesics are getting used. Some major exercises advised and a few local applications of analgesic ointments is employed. But no such effective results found. It's also referred to as Adhesive Capsulitis. It's a painful and disabling disorder of shoulder capsule. It most ordinarily affects the people between the age of 40 to 60 and occurs in women more often than man. The animal tissue surrounding the glenohumeral joint of shoulder becomes inflamed and stiff, greatly restricting movement and causing chronic pain. Pain is typically constant, worse in the dark and with weather. Certain movement can provoke tremendous pain and cramping. Risk factors for frozen shoulder include tonic seizures, DM, stroke, accidents, lung disease, animal tissue disorder and heart condition. Severely restricted movements of shoulder joint and progressive loss of both active and passive range of movements are the characteristics of frozen shoulder (6). Here we are representing a case of frozen shoulder which was treated successfully with ayurvedic medicines and procedures.

Case Report

A 53 year male patient consulted in the outpatient department of the *Parul Ayurved Hospital, Limda Vadodara* with complaints of gradually progressive pain in the left shoulder joint with restricted

movements for 6 months associated with tremor, reduced strength in the left hand and mild neck pain for 3 months.

History of Present Illness

A well-built, 53-year-old man was apparently healthy six months ago, employed as a driver in an export business who used to take a long drive as part of his job without getting a decent rest or sleep. Due to excess work load without sufficient resting time and irregular postures of sleep. He noticed mild pain in left shoulder joint but he ignored it. Later on, he felt difficulty in shoulder movement which restricted him to do his daily activities including his professional life. The pain was of gradual onset, nature of pain was dull aching and his sleep become disturbed. Initially he used to apply some ointments and takes some analgesics tablets which subsides the pain for some extent. But when he gets back to his routine activities pain reappears. It was worst at night and not able to sleep properly. Hence, he was referred to an orthopedician. He did his x-ray-shoulder joint (left), BSL(R), RA test. It was normal. He diagnosed the case as a frozen shoulder and prescribed analgesics and advised physiotherapy. After three-month, patient noticed further restriction of movements of shoulder joint, weakness of left hand, tremors and slightly reduced strength in left hand. For all these complaints, he consulted *Parul Ayurved Hospital* for Ayurvedic management. No history of chronic illness like diabetes, hypertension etc. And injury to shoulder joint. On examination, general condition was good, vitals- HR- 86/min, BP- 140/80 mm of Hg, CVS- s2s2 heard, no murmur, RS- bilateral air entry equal, no added sounds, no pallor and no icterus. Local examination of left shoulder joint findings was tenderness at anterior and posterior aspect of left shoulder joints (+++) on palpation. On inspection no abnormalities were seen. Abduction and adduction were extremely painful, unable to raise hand above 25 degree, painful and restricted movement of joint. On the basis of above observation and history, we diagnosed case as *Apabahuk* (frozen shoulder) and patient was admitted in *Parul Ayurved Hospital* under *Kayachikitsa*

department on 29/10/2021 with OPD/ IPD No. 20017681/201975.

Treatment

Considering the involvement of *dosha – dhatu*, the treatment was planned as follows.

- On the day of admission (29/10/2021)
- *Kostashodana* was advised with *Gandarvahastadi tail* 30 ml with 50 ml of milk at night and 3 *vegas* were observed.
- Panchakarma treatment was started from 30/10/2021.
 - *Sarvanga Abhyanga* with *Sahacharadi Tail* followed by *bhaspa sweda*
 - *Patra Pinda Sweda* from cervical region to left upper limb
 - *Greeva Basti* with *Kottamchukadi Tail* for 30 minutes.
 - *Matra Basti* with *Balaaswagandha Tail* 40 ml for 7 days.
- Oral medications:
 - *Rasnapanchak Kwatha* - 15ml three times a day with equal quantity of warm water.
 - *Trayodashang guggulu* - 2 tab two times a day with warm water.
 - *Eranda, Rasna, Nirgundi And Shunti Churna Kashaya* 50 ml two times a day (Morning at 7am and evening at 6pm).
- Patient was discharged on 7/11/2021 with the following *shamanoushadi*.
 - Tab. *Trayodhashanga guggulu* 2-0-2 with warm water for 21 days
 - Syr. *Rasnapanchak Kashaya* 10-0-10ml with warm water for 21 days.

Results

The effect of treatment was assessed based on subjective and objective parameters. The subjective parameters include pain and stiffness (Scoring system as per opinion of Carolyn M Hicks 1999) (7). objective parameters include visual analogue scale for pain assessment and movements of the shoulder joint. Results were as follows.

Table 1: Subjective Parameters Assessment

Parameters	Findings	Grading	Findings	
			BT 29/10/ 2020	AT 07/11/ 2020
Pain	No pain	0	3	1
	Mild pain – particularly on moving the shoulder, able to continue routine work with difficulty.	1		
	Moderate Pain – pain felt on movement, at rest, interfering with routine work.	2		
	Severe Pain – felt on movement and also at rest, disturbing sleep unable to carry out most of the routine work.	3		
Stiffness	No stiffness	0	3	1
	Mild stiffness – particularly on moving the shoulder, able to continue routine work with difficulty	1		
	Moderate stiffness – pain felt on movement, at rest, interfering with routine work	2		
	Severe stiffness – felt on movement and also at rest, disturbing sleep unable to carry out most of the routine work	3		

Figure 1: Visual Analogue Scale

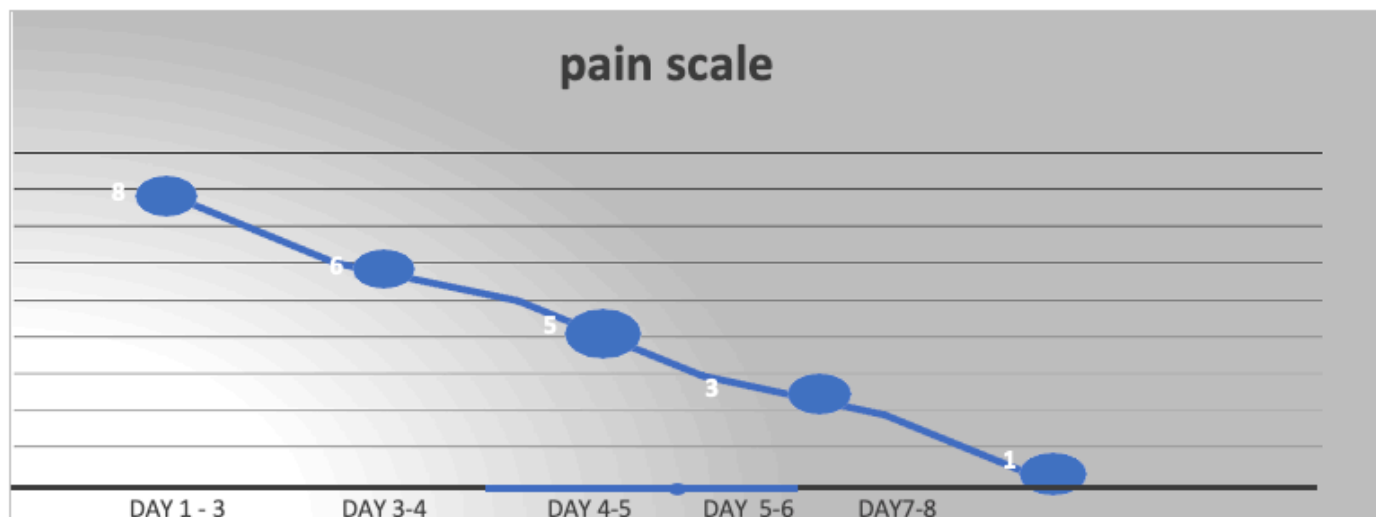


Table 2: Objective Parameters Assessment

Criteria	BT	(AT)**
Abduction (0-170°)	65°	130°
Adduction in extension (0-50°)	25°	35°
Forward flexion (0-165°)	60°	130°
Backward extension (0-60°)	No backward extension	50°
External rotation in extension (0-70°)	No external rotation	55°
Internal rotation in extension	Unable to move left hand in backward direction	Able to get the left hand behind the back

Discussion

Frozen shoulder is a disease of shoulder joint and is self-limiting, but recovery takes for much longer time up to 3-4 yrs. and it recovers in 3 steps. First step is freezing step which lasts for six weeks to six months. In this phase intensity of pain is extremely much and movement is gradually restricted. Second stage is named frozen stage. It lasts for 4 months to six months. In this stage pain intensity decreases but range of movement is lost. Shoulder becomes notably stiff which restricts active and passive movements of joint. Third stage lasts for about 6 months to 2-4 yrs. In this stage stiffness is gradually relived pain is extremely less as compared to previous 2 stages. This stage is typically well tolerated by patient as pain and stiffness both are gradually relieved. Many treatment options are available for management of frozen shoulder still there is no consensus in literature regarding which therapeutic option is superior mostly due to lack of high level of evidence⁸ because the recovery period is far longer and initial stage of freezing is extremely painful some alternative treatment like Ayurveda is very beneficial.

In Ayurveda, *vatavyadhis* are more in number among *nanatmaja vyadhi*, so, *vayu* might be called as the rotate of the cycle which conveying the life towards the limit. Frozen shoulder/adhesive capsulitis of western medication is conveying the comparable highlights of *apabahuka* of ayurvedic medication. So, in present study, frozen shoulder has been taken as a current relationship of *apabahuka*. The term initially found in *susruta samhita* (500 BC), later different acharyas like

Vagbhatta, Madhavakar, Sarangadhara and Bhavmisra have mentioned the term *apabahuka* in their separate *samhitas*. During survey of the *samhitas* and going through the induction it very well may be characterized as a disease caused by *kupita vata dosa*. *Apabahuka* is a disease of *amsa-pradesh* caused by *kupita vata dosa* which does the *soshana of amsa sandhi*, accordingly prompting *akunchana of sira* at that site and offering ascend to *bahupraspandana haratwam*. In consideration to the ayurvedic etiopathogenesis of the disease it uncovers that the *vata prakopaka* etiology in general is essentially liable for the beginning of the disease and similar etiological factors were observed in this case. The particular etiology like weight lifting, excessive hand movements, *sahasa karma, dukkhashayya* (mal resting posture) especially hand under the head during sleeping are the fundamental causative variables. Vitiated *vata* circulates all over the body (*prasara*) yet it happens uncommonly at the region of *amsasandhi (sthanasamsraya)* because of the earlier '*khavaigunya*' and prompts *dosa dusya sammurchana* at the said place. The symptomology in ayurvedic science is *soshana, sankochana* and *ruja* which are additionally like the symptomatology like dryness, stiffens around the shoulder and pain referenced in contemporary science. The line of the treatment of contemporary science isn't so effective and promising. Physiotherapy, NSAIDS and local analgesics are used for the treatment of frozen shoulder in allopathy. In ayurveda, panchakarma and oral medications are explained for the treatment of *vata* predominant disease.

Probable mode of drug action

Trayodashanga guggulu

Apabahuk is a *vata*vyadhi, caused because of vitiation of *vata* and *kapha dosha*. *Vata* vriddhi, *kapha* kshaya and involvement of *pitta dosha* produces signs and symptoms of *apabahuk*. For the disintegration of pathology of *apabahuk*, the drugs should pose few important qualities like *vata*dosha hara, *dhatvagnivardhaka*, *dhatuposhak*, *vedanashamak* and should have *snigdha* property as *amsa sandhi* is a place of *kapha*. The drug *trayodashanga guggulu* is a combination of thirteen herbal drugs together with *guggulu* processed in ghee. The components like *shatavari*, *ashwagandha*, and *guduchi* are called rejuvenators and affords energy to *dhatu*s. *Shunthi* and *ajamoda* enhance *jatharagni* while *babul* is specifically performing on *asthidhatwagni*. Ghee with its *yogavahi guna* allows in higher absorption and penetration of the drug. Thus, *trayodashanga guggulu* at once affects at the etiology of *apabahuk* and allows withinside the disintegration of the *samprapti* and settles down the vitiated *vata dosha* and nourishes the *guna* of *kapha*. *Agnimandya* is the main cause for the *vata*vyadhi. *Agnimandya* become corrected with the aid of using the *dipan- pachan dravyas shunthi*, *ajawayan* and *shatapushpa*. They have been additionally acted as *vatanulomaka*, *vatashamaka* and *vedanasthapaka*. In *apabahuka*, *dhatukshaya rodhaka*, *dhatuvaradhaka*, *daurbalyanashaka chikitsa* become important as *mamsa* and *asthi dhatu kshaya* have been located with generalized weak spot in *dhatu*, *sandhis* etc. The herbal drugs like *ashwagandha*, *shatavari*, *guduchi*, *guggul*, *vriddhadaru*, *babul*, *hapusha* and *goghrita* have been act as *balya*, *rasayan*, *vayasthapak* which may be very important in *vata*vyadhi (*apabahuk*). In *apabahuk* *vataprakopa*, *dhatukshinata*, *dhatu rukshata*, *parushata*, *asthidhatukshaya* normally founds. The contents of *trayodashanga guggulu* have been particularly *guru*, *snigdha gunatmak*, *madhur rasa*, *madhur vipaki* and *ushna viryatmak* in its properties (9), which corrects the above-referred to signs and symptoms.

Rasna panchak kashaya

The ingredients of the *rasnapanchaka kwatha* include *rasna* and *erandamula* are best drugs in *vata*vyadhi. *Guduchi*, *devadaru* and *shunthi* show its action on *asthi* and *amjja dhatu* (10). Thus, *rasnapanchaka kwath* has *agnideepan*, *vatashamak*, *anulomana*, *shulahara*, *shothahara* and *rasayana* qualities, which results in established order of equilibrium state of *doshas* & as a consequence liberating the symptoms of *apabahuk*.

Patra pinda sweda

In *nirgundi patra pinda sweda*, *nirgundi*, *eranda*, *rasna*, *arkapatra*, *haridra*, *nimbu swaras*, *narikela* and *tila taila* have been used. *Nirgundi* have *kapha-vata shamaka*, *rasayana*, analgesic and anti-inflammatory properties. *Tila taila* had *snehana*, *sandhaniya*, and *rasayana* properties. Before *patra pinda sweda*, *abhyanga* was done and which helps in subsides the vitiated *vata-kapha dosha*. The properties of

abhyanga are *kledakara*, *jarahara*, (8) *paushtikara*, and *kapha-vata nirodhana*. The *sneha dravyas* used for *abhyanga* penetrates the deeper tissues like *masa*, *meda*, *asthi* and *majja dhatu* and so on. *Abhyanga* increases the muscle strength, helps in reducing the stiffness of muscle, increases blood flow to parts and helps in metabolism. After *abhyanga*, *patra pinda sweda* become implemented to the affected part of the body, which become *kapha-vatanirodhana*, *agnideepaka*, *sandhichestakara*, and *srotosuddhikara*. It reduces the *stambha*, *shula*(pain) and relaxes the muscles. *Svedan* increases the blood flow to the tissue and which helps in absorption of the *sneha* through the skin. Like this *svedan* helps in relieving stiffness and pain. *Sanga* is the type of *srotodusti* occurs in *apabahuk* and to resolves the *sanga*. *Patra pinda sweda* plays an important role and the properties of drugs like analgesic, anti-inflammatory helps to get rid up of disease and helps in brings homeostasis of the *doshas* in the affected part and also in the body (11).

Matra basti

It is continually relevant to the person who is suffering from *vataja vyadhi*. It promotes strength, without calling for any strict routine of diet, and additionally reasons proper evacuation of Mala and Mutra. It plays the characteristic of *brimhana* and also cures *Vata*vyadhi (12). *Virya* of *Basti* is conveyed to *Apana* after which to *samana vata*, which can also additionally modify the characteristic of *Agni* (13). It then is going to *udana*, *vyana*, and *prana*, hence presenting its efficacy everywhere in the body. At the same time, *Basti* pacifies *vata*, restores the disturbed *kapha* and *pitta* at their authentic seats and hence enables in breaking the pathogenesis.

Greeva basti

It is one of the *bahir-parimarjana chikitsa* via which outside *snehana* and *swedana* is done. *snehana* and *swedana* are cautioned for the remedy of *vata* disorders (14). *greeva basti* presents neighborhood *snehana* and *swedana* on the affected vicinity. *snehana* presents nourishment to the *dhatu* and *swedana* relaxes the muscle groups, increase the blood flow and decreases the inflammations. *swedana* having *ushna guna* reduces the *kleda* of the affected vicinity inflicting comfort withinside the *gaurava* and *stambha*. skin is one of the sensitive organs of the body and medicines applied to skin are absorbed inner because of its permeability (15). *Kottamchukkadi tail* have anti-inflammatory, analgesic and anti- arthritis properties. *Kottamchikkadi tail* via *greeva basti* facilitates withinside the rest of muscle groups, reduces ache and inflammations via its *vatahara* properties. luke warmth of the oil acts as neighborhood *swedana* and facilitates to lessen pressure of the muscle groups and will increase the blood flow. *snigdha* and *ushna guna* facilitates to counter act the *ruksha* and *sheeta guna* of *vata*. hence, *kottamchukkadi tail* in conjunction with the action of *greeva basti* facilitates to lessen the signs and symptoms like pain, stiffness and will increase the movements of the joints.

Conclusion

In this clinical study, improvement was observed in the patient who was suffering from the frozen shoulder. Subjective and objective parameters have shown significant improvement with ayurvedic management which includes *kostashodan*, *patrapinda sweda*, *sarvanga abhyanga* and oral herbal medicines.

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