



“Patient experiences of frozen shoulder and its treatment with Bowen technique”

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INTRODUCTION

Frozen shoulder is medically called adhesive capsulitis, and the shoulder capsule (the connective tissue surrounding the glenohumeral joint of the shoulder) becomes inflamed and stiff, and movement is greatly restricted, resulting in chronic pain. It is a disease that causes. Frozen shoulder is a painful and disturbing illness. The slow recovery often causes great frustration for patients and nursing staff. Shoulder movement is severely restricted. The pain is usually continuous and worse at night and in cold weather. Due to restricted movement, even small tasks cannot be completed. Certain movements and bumps can cause a sudden onset of immense pain or cramps that can last for several minutes. The exact cause of this condition is unknown and can last from 5 months to 3 years or more, and in some cases is believed to be due to an injury or trauma in the area. It is believed that it may have an autoimmune component, and the body attacks healthy tissues within the capsule. In addition, lack of water in the joints further restricts movement. In addition to the difficulty of daily work, people with frozen shoulders often have prolonged sleep disorders due to increased pain at night and restricted movement and posture. This condition can also cause depression, pain, neck and back problems.

Risk factors for frozen shoulders include diabetes, stroke, accidents, lung disease, connective tissue disease, and heart disease. This situation rarely occurs in people under the age of 40. Treatments are painful and painstaking and include physiotherapy, medication, massage therapy, hydration, or surgery. Doctors may also perform surgery under anesthesia. This destroys joint adhesions and scar tissue and restores certain range of motion. Pain and inflammation can be controlled with analgesics and non-steroidal anti-inflammatory drugs. This condition is often self-limiting. It usually resolves over time without surgery, but this can take up to two years. Over time, most people recover about 90% of their shoulder movements. Frozen shoulders may find it very difficult to carry out normal living activities for more than a few months.

Shoulder movement is severely restricted and the range of active and passive movement is gradually lost. [1] This condition can be caused by an injury that makes it unusable due to pain, but it often occurs spontaneously without an obvious pre-trigger factor (idiopathic frozen shoulder). Progression of rheumatic disease and recent shoulder surgery can cause pain and limitation similar to frozen shoulders. Intermittent use can cause irritation.

Frozen shoulder patients are deficient in synovial fluid and usually help the shoulder joint (ball-and-socket) move by smoothing the gap between the humerus (humerus) and scapula (scapula). The scar tissue (adhesions) formed on the shoulder capsule thickens, swells, and tightens the shoulder capsule. As a result, the space in the humerus joint becomes narrower, the shoulder movement becomes stiff, and it becomes painful. This limited space between the capsule and the humeral bulb distinguishes adhesive capsule inflammation from less complex, painful, stiff shoulders. [2]

People with diabetes, stroke, lung disease, rheumatoid arthritis, or heart disease are at increased risk of frozen shoulders. Shoulder and arm injuries and surgery can reduce the use and tightening of capsules during the recovery period. [2] Adhesive bursitis is recognized as a possible side effect of some form of highly active antiretroviral therapy (HAART).

This condition rarely occurs in people under the age of 40, and at least in the idiopathic form, women are more common than men (70% of patients are women between the ages of 40 and 60). Compared to non-diabetic patients, the frozen shoulders of diabetics are generally considered to be a more troublesome illness with longer recovery times. [3] There are also case reports after breast and lung surgery.

The shoulder is a complex anatomy that allows movement in many aspects. Neither doctors nor patients often consider the importance of the shoulder joint until it is impaired. Since then, its importance has become apparent for many basic activities. "If you don't use it, you lose it" This sentence applies perfectly to shoulder ailments. Voluntary or involuntary protection of the shoulder can cause mobility problems.

The term "fifty shoulders" loosely applies to situations where shoulder function is below the optimal range. The shoulder joint is very complex, so it is very important to determine the exact cause of the loss of shoulder joint mobility. It is important to use the correct terminology so that doctors can communicate effectively and treat patients appropriately.

The main symptoms are: Decreased motion of the shoulder, Pain and Stiffness

Unexplained frozen shoulder begins with pain. This pain makes the arm unable to move. Without exercise, this leads to stiffness or even less exercise. Over time, you will not be able to perform activities such as reaching or falling behind.

The joint capsule of the shoulder joint has ligaments that hold the shoulder bones to each other. When the capsule becomes inflamed, the shoulder bones are unable to move freely in the joint. One of the symptoms of frozen shoulder is that the joints become tight and stiff, making it almost impossible to perform simple movements such as raising arms. The most restricted movement is external rotation of the shoulder.

People complain of increased stiffness and pain at night. Freezing shoulder pain is usually dull or sore. If you try to move or hit it, the situation will get worse. If the physical examination shows restricted shoulder mobility, the physical therapist may suspect that the patient's shoulder is frozen. The frozen shoulder is the limitation of the active range of motion (the range of motion caused by the active use of muscles), and the passive range of motion (the range of motion of the person operating the arms and shoulders). Arthrography or MRI scans can confirm the diagnosis, but this is rarely necessary in practice.

After discussing your symptoms and medical history, your doctor will examine your shoulder. The doctor will carefully move the shoulders in all directions to see if the movement is restricted and if there is pain in the movement. The range of motion when another person moves your shoulder is called the "passive range of motion". Your doctor will compare it to the range of motion you see when you move your shoulders ("active range of motion"). Patients with frozen shoulder have limited active and passive range of motion.

This condition can develop into one of the severe pains caused by stiffness and reduced range of motion. The sclerosis increases until the natural arm swing associated with normal walking disappears. 8. The patient tries to compensate for this loss by using other muscles to increase the rotation of the scapula and perform various activities. This puts additional stress on other muscle groups and makes them overwork and soften.

Physical examination during the painful period of frozen shoulder may reveal muscle spasms and diffuse tenderness around the shoulder and deltoid muscles. Very few areas of precise tenderness are found. As the disease progresses, disuse atrophy of the shoulder strap can occur in cases over many years. The passive and active range of motion in all aspects of shoulder movement disappeared (Figure 5). This loss of overall movement is the main factor that distinguishes adhesive capsulitis from many secondary adhesive capsulitis related diseases. The second step, the bonding step, reduces pain and increases rigidity. Pain is reduced at night, discomfort only occurs during strenuous exercise, but the amount of exercise is significantly reduced. This stage lasts for 4-6 months. The last phase is called the recovery phase and lasts one to three months. It is characterized by mild pain but severely restricted activity. The latter stage is self-limiting, with the range of motion gradually and spontaneously increasing. However, it rarely recovers completely. First improve the range of external rotation, and then improve abduction and internal rotation. Before each improvement phase, a short recovery period may be accompanied by a burst of pain. Approximately 7-15% of patients permanently lose their full range of motion, but there are few real dysfunctions.

Research comparing different treatments for frozen shoulder shows that some treatments have no long-term benefits, but early and accurate diagnosis is essential. The goal of treatment for patients with frozen shoulder is to reduce pain and maintain shoulder mobility. The first step is to prevent secondary adhesions of the shoulder joint capsule by clearly addressing the root cause. It is important to avoid long-term fixation of patients who may be prone to adhesions of the shoulder joint capsule.

The treatment of shoulder injuries of any etiology requires early range of motion treatment to reduce muscle spasms while maintaining full range of motion. Heat, cold, and other ways to relax muscles can help maintain range of motion. Successful treatment at this stage requires appropriate analgesia. Due to the pain associated with broken adhesions, strenuous exercise is contraindicated. In addition, more painful treatment options have been found to be associated with higher levels of non-compliance. Patients with adhesive capsulitis need constant encouragement because they may slowly resolve. Gradually increasing the range of motion of the shoulder will reduce the pain associated with the disease. Physical therapy at home, such as Codman's exercises, "climbing walls" and raising objects to help them reach them, is cost-effective, but requires a long rehabilitation process.

Non-steroidal anti-inflammatory drugs (NSAIDs) help relieve pain and inflammation. If the use of non-steroidal anti-inflammatory drugs is contraindicated, analgesics are required. Muscle relaxants help in the early stages of convulsive disease. Low-dose antidepressants may help avoid the cycle of sleep disorders that cause chronic pain syndrome and fibromyalgia.

Intra-articular injections of corticosteroids are used in affected patients to reduce pain and enable more aggressive physical therapy procedures. The injection site is located 1 cm distal to the coracoid process and 1 cm laterally (Figure 8). When keeping the elbow in a relaxed position on the patient's side, the complete external rotation of the humerus helps to open a space that is difficult to enter when contracted due to capsulitis. The usual dose is another depotone containing 15-40 mg of triamcinolone acetonide (Kenalog) or 1 mL of 1% lidocaine. Intra-articular corticosteroids are often used, but the long-term benefits of this treatment (i.e. shortening the time to complete recovery) have not been proven. Some clinicians recommend simultaneous intra-articular and synovial sac injections to relieve pain before starting physical therapy. Oral corticosteroids do not help. Severe frozen shoulders diagnosed at a later stage are more difficult to manage. The above treatments may be useful in some situations, but they are not always successful. If physical therapy and injection fail, surgical intervention should be considered (no improvement after 3 months of treatment). Surgery that destroys adhesions under anesthesia is reserved for use in the adhesion stage. During this process, the joint capsule and subscapularis muscle ruptured, and active rehabilitation treatment was used to restore and maintain the range of motion of the shoulder. Patients undergoing surgery can receive intra-articular corticosteroid injections after surgery and can start physical therapy on the day of surgery. Icing is usually very useful.

Another option is to manage cross-scale blocks before operation. This will eliminate the patient's pain and allow you to start physical therapy immediately. The risks associated with surgery under anesthesia include humeral fractures, dislocations, and rotator cuff tears. Contraindications to surgery include severe osteopenia, a history of fracture or dislocation, or recurrence after correct surgery. For patients who cannot resist closed surgery, the release of the capsule under arthroscopy has been shown to improve exercise while minimizing the incidence of surgery. In this study, most patients experienced significant pain relief and improved function. Some researchers have shown that arthroscopic release can help patients with diabetes-related joint capsule adhesions who are resistant to conservative measures. The 13 patients studied were painless, had a wide range of motion, and were fully functional after surgical release.

Interestingly, there is a significant contradiction between the patient's lack of subjective perception of the remaining range and the measurable (objective) limitation. Many patients with insufficient coverage believe that rehabilitation is complete. In addition to this difference in the subjective and objective assessment of recovery, changes and confusion in the definition of shoulder joint capsule adhesion may explain contradictory reports on prognosis and treatment¹².

AIMS AND OBJECTIVES

The aims of the study were:

1. To determine the outcome of Bowen technique in relation to patients' experience of pain associated with frozen shoulder
2. To determine the outcome of Bowen technique in relation to patients' limited functional ability with frozen shoulder
3. To determine the outcome of Bowen technique in relation to the general well-being of patients with frozen shoulder
4. To determine the level of patient experiences with Bowen technique as a treatment modality for frozen shoulder

MATERIALS AND METHODOLOGY

Study design: Experimental

Study setting: The study was conducted in one of the hospital in Bhopal.

Sample selection:

The target population was all patients, who met the inclusion/exclusion criteria, who presented to the participating therapists during the period of the study. The target population was 20 patients although it was acknowledged that fewer patients might present during the time window of the study. The target population aimed to reflect an appropriate gender and age balance.

Sample size: 20 subjects with frozen shoulder are included in this study.

i. INCLUSION CRITERIA:

The key criteria for inclusion in the study were as follows:

_ Patient should meet the criteria for frozen shoulder as proposed by Pearsall and Speer (1998):

- ❖ clinical history of worsening painful shoulder
- ❖ motion loss of at least 1 months duration
- ❖ physical examination documenting painful, restricted shoulder motion.
- ❖ Patient should freely consent to participate in the research.
- ❖ Patients should be aged 18 years or over
- ❖ Patients should not be experiencing any major mental health problem
- ❖ Patients should not have received any other physical treatment modality such as physiotherapy, cortisone injections, trans-cutaneous electrical nerve stimulation (TENS), heat or cold therapy for three months prior to commencement of Bowen Therapy.

- ❖ Diagnosed frozen shoulder/primary idiopathic adhesive capsulitis
- ❖ Age: 40-60 years
- ❖ Patients having painful stiff shoulder at least for 3 months
- ❖ Unilateral condition
- ❖ Both male and female patients, Both left and right handed peoples

ii. EXCLUSION CRITERIA:

- ❖ Previous shoulder surgeries to the affected shoulder, neck and elbow
- ❖ Secondary adhesive capsulitis e.g.: fractures around shoulders
- ❖ Shoulder girdle motor control deficits associated with neurological disorders e.g.: stroke, parkinson's disease
- ❖ Injection with cortico steroids in the affected shoulder in the preceding 4 weeks

The Intervention

The patient prepares for a particular frozen shoulder dissolution by performing a series of basic relaxation movements that cover the muscle tissue of the upper back, neck, and shoulders. Ideally, these actions are performed while the patient is lying down. After the neck and shoulders are relaxed, the patient is asked to stand or sit for a particular procedure. The simple process involves three actions. First perform the "cup" action. This involves rotating Bowen vertically at the posterior end of the deltoid muscle above the axillary folds. When performing this movement, the patient's arm is bent 90 degrees at the height of the center of the chest. Then the "cup" moves. At the same time, slowly move your elbows toward the opposite shoulder. Arm movements can be performed by the therapist or assistant. Then, after the arm is fully retracted, the therapist taps the side of the shoulder firmly with the heel of the hand. Finally, the arm is returned to its original position and the therapist slowly moves upwards

and slightly laterally over the anterior deltoid fibers. Then carefully lower your arm. The procedure is always bilateral and treats the unaffected shoulder first. Not affected

Ask the subject to raise each arm in turn to the first restriction point to determine one side. Frozen shoulder treatment is repeated 7 days after the first treatment. If the solution is not reached, it may include additional actions. Based on the assessment, these additional actions may include coping with the neck, chest, shoulders, and back muscles and neurovascular bundles. 28 days must pass to repeat this cycle. Anecdotal evidence suggests that continuous treatment (3 or more courses) is rarely needed, but the 7- and 28-day schedule between treatments continues as needed (Minnery). , 2001).

RESULTS AND STATISTICAL ANALYSIS

A total of 21 patients were enrolled in the study during the period available for the study. Patients treated for frozen shoulders had a complex history of severe shoulder injuries, so it was decided to exclude them from the final dataset (after post-treatment interviews).

Participants were 10 men and 10 women. 60% of the participants were over 50 years old (see Figure 1). Fifteen participants were right-handed and five were left-handed. Twelve subjects developed symptoms on the right shoulder and eight developed symptoms on the left shoulder.

Figure 1: Age range of participants (n=20)

S. No.	Age Range	No of subjects
1	18 -30	1
2	31 -40	2
3	41 -50	5
4	51 -60	9
5	61-70	3
Total		20

S. No.	Rating of general health	No of subjects
1.	Excellent	2
2.	Very Good	12
3.	Fair	3
4.	poor	3

Duration of frozen shoulder

One participant experienced pain for a month, all other participants experienced pain for more than 4 weeks, and one participant experienced pain for 10 years. Most participants (n = 13) experienced pain for more than 3 months (see Figure 5).

S. No.	Duration of frozen shoulder	No of subjects
1	Less than 1 month	1
2	1 < 2 Month	1
3	2 < 3 Month	1
4	3 < 12 Month	10
5	12 < 24 Month	3
6.	24 month or more	4
Total		20

	Pretest	Protest
1.	6	2
2.	8	3
3.	7	2
4.	6	1
5.	8	1
6.	5	0
7.	6	0
8.	7	0
9.	5	0
10.	5	1
11.	4	0
12.	9	1
13.	9	0
14.	5	0
15.	4	0
16.	4	1
17.	6	2
18.	12	0
19.	9	0
20.	4	1

S.No.	Test	Mean	Mean difference	Standard deviation
1.	Pre test	6.45		2.16369
2.	Post test	0.75		0.9104

TABLE - VI : SIMPLE TEST FOR EVALUATION OF HAND FUNCTION PAIRED 't' TEST - PRE-TEST AND POST- TEST VALUES OF GROUP A

S.no	Test	Mean	Mean difference	Standard deviation	Paired 't' value	The result is significant at $p < .05$.
1.	Pre test	43.07	10.67	2.319	10.9911	The value of p is $< .00001$.

The Table VI shows the analysis of test for evaluation of hand function in Group. Using paired 't' test with 19 degrees of freedom and 0.05% as a level of significance, the calculated 't' value 10.991 is more than the tabulated 't' value. The result shows that there was marked difference between pre-test and post-test values

DISCUSSION

The purpose of this study is to investigate four key factors related to Bowen's treatment and their effects on frozen shoulders. The four key factors are pain, mobility, well-being, and satisfaction with the treatment itself. The majority of participants believe that Bowen's treatment is mild, relaxing, non-invasive and helps to improve or eliminate symptoms associated with frozen shoulders. Evidence of this case is here

Pass-through:

I am very pleased with the treatment and will promise to use Bowen in the future when symptoms such as frozen shoulders recur and will recommend treatment and therapist to friends and family.

_ All participants' shoulder mobility and related functions have been significantly improved, with 70% of participants returning to full mobility (equal to the unaffected side) at the end of treatment.

_ All participants' pain intensity scores and pain quality explanations were significantly reduced.

Some participants scored 1-3 points

Slight pain. At the end of the study, participants no longer used the powerful and invasive pain descriptor.

Bowen cannot claim 100% success from this study, but even participants with a long history of frozen shoulders showed significant improvement to participants.

For most participants, it gives good results, especially when it comes to improving liquidity.

_ The daily activities of all participants have been improved. There were no reports of pain having a serious effect on daily life, and few reports of mild to moderate effects at the end of treatment.

Satisfaction with Bowen therapy

Bowen's treatment is highly satisfying, mainly because the treatment is believed to be effective in reducing or eliminating symptoms and is mild. Participants who experience pain are reluctant to develop a more rigorous treatment plan because they believe that the burden of pain will increase. Participants who received physiotherapy reported that they did not necessarily follow the exercise therapy because the exercise was time consuming and painful. The advantage of Bowen is that participants do not feel pain during treatment and the associated exercise is mild and threat-free. Participants who initially suspected a cure were persuaded by the fact that it produced results. This is the first time for many participants

They have experienced all forms of adjuvant therapy. They were impressed with the counseling, the therapist's interpersonal skills, and the technical steps taken by the therapist. Participants were initially surprised that the therapist left the room after completing a series of actions, but soon realized that it was a positive experience that helped them relax. All participants said they would reconsider the use of Bowen therapy and recommend it to friends and family.

It is noteworthy that participants did not withdraw from the study, but withdrawal from the study of shoulder pain was considered problematic (van der Heijden, 1997). For example, Winters et al. (1997), withdrawal rates were significant in all treatment groups (17% in the injection group, 51% in the physiotherapy group, 59% in the surgery group). In fact, Winter et al. Some participants of. Studies have reported that they stopped physiotherapy because of lack of improvement, non-compliance with exercise at home, and dissatisfaction with the painful nature of treatment.

Mobility, functional status, reduced pain and enhanced well being

Bowen therapy has been successful for most participants and more or less reliably relieves baseline symptoms in each participant. Therefore, it can be seen that Bowen therapy reduces the associated prevalence of participants. This then affected their ability to engage in daily activities and their overall well-being. Participants are pleased with this improvement. The most striking result of the study is improvement in all aspects

In the functional activity of frozen shoulders, 70% (n = 14) of the participants had no difference in activity between the affected side and the unaffected side at the end of treatment. This appears to respond better than many other studies using a variety of conventional treatments (Croft et al., 1996; van der Heijden, 1997; Winters et al., 1997).

The remaining 6 participants all showed improved mobility, with the difference reduced to 1-3.

These participants are more functionally competent and can participate more fully in their daily activities. Bowen therapy appears to affect the duration and / or intensity of onset and therefore reduces the main onset-related effects discussed by Dodenhoff et al. (2000).

The pain score has also dropped significantly. Participants were either painless (score zero) or had a significantly reduced pain intensity score at the end of treatment. The range and intensity of the pain descriptors used to describe their pain was also significantly reduced, and milder terms were used for those who recorded their pain.

The combination of improved mobility, functional status, and pain relief helped to enhance well-being, as evidenced by the increased scores of participants in daily activities. One measure of success is for participants to return not only to "necessary" living activities such as shopping, cleaning and work, but also to hobbies such as gardening, bowling, curling and sewing.

And wood products. This feeling of joy is very clear when it comes to the resurgence of the ability to "do what you want to do, don't think about it, and feel sick."

CONCLUSION

Bowen cannot claim 100% success from this study, but even participants with a long history of frozen shoulders showed significant improvement to participants. This is a good result, as other studies have shown that patients with symptoms of chronic periarthritis of the shoulder are less effective (see Croft et al., 1996). For most participants, it gives good results, especially when it comes to improving liquidity. With respect to the outcome indicators used in other studies (success rate, mobility, pain, functional status), Bowen can be considered an active intervention and, of course, evaluated as very satisfying by study participants. it was done. In the above study, frozen shoulder syndrome is a very painful and debilitating shoulder disorder characterized by over 50% pain and severe stiffness in all directions (i.e., arm in any direction, especially).

Frozen shoulders show idiopathic, gradual onset, leading to pain, stiffness, and reduced range of motion. Because of the pain, people tend to use their shoulders less. Frozen shoulders cause inflammation of the shoulder joint, which can thicken the joint capsule around the shoulder joint, form wounds, and contract. Scar tissue and adhesions form around the shoulder joint, causing chronic stiffness. Some of the reasons for freezing shoulders are poor posture, prolonged immobility due to previous injuries, diabetes, or discontinuation due to pain. Studies show that frozen shoulders are often the first sign of undiagnosed diabetes. This is common in women over the age of 50.

Hard-working physiotherapy is the key to recovery from frozen shoulders. Recovery from frozen shoulders can take weeks or months, depending on the severity. The therapist applies heat and ultrasound to heat the joints and guide stretching / strengthening exercises to restore shoulder range of motion and strength. Be sure to apply ice after exercising to reduce inflammation.

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