

Frozen Shoulder Syndrome

Simeon Niel-Asher

Simeon Niel-Asher has commenced a randomised controlled clinical trial in the Cambridge area. The research is a randomised placebo controlled trial involving three treatment modalities: Osteopathy v physiotherapy v placebo. All patients have an initial consultation with a senior research physiotherapist who assesses them with various quantitative and qualitative tests (one and a half hours). Patients are then randomised to one of the three treatment options, six 45 minute treatments are performed on Thursdays over nine weeks and patients are evaluated after the third and sixth treatment. When the trial is complete the results should be published in the *British Journal of Rheumatology*.

More patients need to be recruited for the trial. Treatments take place on Thursdays in the Cambridge area.

Inclusion criteria:

- Unilateral shoulder pain and stiffness
- Age 40-70
- 6 months plus symptom duration
- No underlying articular or soft tissue pathology
- No previous shoulder surgery

For further details please contact Josh on 01223 217 459.



Frozen shoulder syndrome (FSS) is a commonly recognised clinical complaint. It is encountered by clinicians (General Practitioners, rheumatologists, orthopaedic surgeons) and physical therapists (physiotherapy, osteopathy, chiropractic). Defining 'frozen shoulder' is not straightforward^{1, 2}. It has been used incorrectly as a general diagnosis for shoulder pain and stiffness. The definition, aetiology, pathophysiology and treatment of this condition are subjects of debate.

Since first being described by Duplay in 1872³ various attempts have been made to define and categorize frozen shoulder. I shall define frozen shoulder syndrome after Grubbs as 'a soft tissue capsular lesion accompanied by painful and restricted active and passive motion at the glenohumeral joint'¹.

Frozen shoulder affects females slightly more than males^{2, 4} typically between 40 and 60 years of age¹. The non-dominant arm is more likely to be involved⁵, although about 12% of people are affected bilaterally⁶. Frozen shoulder syndrome is common affecting 2-5% of the general population¹, whilst in diabetics the incidence is between 10-20%⁷. Other factors such as depression, immunologic factors, posture and occupation have been implicated in the aetiology⁸.

The natural history of this condition is well documented¹. Frozen shoulder passes through the three phases of freezing, frozen and thawing⁹. The average duration of symptoms is 30 months. The freezing (painful) phase lasts between two and a half and eight months. Night pain is a common feature of this phase. This is followed by the frozen (stiff) phase, which lasts between four and 12 months. There still may be night pain but this usually diminishes as gleno-humeral mobility decreases. Spontaneous recovery of mobility ➤



Simeon Niel-Asher scanning a patient with the Toshiba ECCOCCEE Ultrasound machine which was lent to him for the study.

➤ (thawing) follows over the next four to 12 months although full recovery is commonly protracted. After the thawing phase an objective restriction of mobility may often persist for several years⁹.

The most commonly affected movements are external rotation and abduction of the gleno-humeral joint. Patients commonly complain of sharp pain reaching for the back pocket, combing the hair, or doing up their bra¹⁰. The arm does not swing when walking. At rest the arm is often held in adduction and internal rotation, and the scapula of the affected side is usually elevated, laterally rotated and abducted⁹. Depending on the longevity of symptoms, the body may develop a compensatory mechanical adaptation.

Current treatment

There is no unanimous opinion regarding the proper method of treatment¹. A great number of therapeutic regimes have been advocated, but none have proved consistently successful.

The first line of treatment is usually a course of oral analgesic drugs such as NSAIDs, with physical therapy. It is believed that physical therapy is of little or no use during the freezing or frozen phases, but may help speed up recovery during the thawing phase¹. The GP may initiate a course of hydrocortisone injections into the shoulder, these are rarely useful on their own². Patients may have more than a dozen physical therapy sessions during this time including ultrasound, mobilization and exercise regimens. Transcutaneous Electrical Nerve Stimulation (TENS) machines are also commonly used to alleviate night pain. The next stage is often referral for one of several more invasive treatment options. This includes manipulation under anaesthesia (MUA) followed by several months of intensive physical therapy, or if severe, more invasive surgery. The risks associated with MUA include fracture of the humerus, tendon rupture and brachial plexus injury¹. As recently as 1997 several clinical trials have shown that none of the above treatments gives consistently reproducible success¹¹.

Osteopathy and Frozen Shoulder

Osteopathic texts fail to illuminate the 'osteopathic pathology' and/or a treatment regimen for FSS. 'No generally accepted guidelines for the treatment exist'^{12,13}. Several texts offer a vague outline for treatment. They advise soft tissue treatment of the shoulder muscles combined with basic home exercise programmes¹² and the 'correction' of 'lesions' in the thoracic spine, sternoclavicular and acromioclavicular joints^{13,14}. American texts go on to promote the use of local steroid injections or prophylactic Prednisolone in the early

phase of the syndrome^{13,14}, concluding 'the injection... may give only temporary relief and may have to be repeated at regular intervals'¹³. Other texts seem to regurgitate and paraphrase orthopaedic books talking about treatment in the vaguest of terms^{15,16}. They are mainly descriptive, the pre-eminent advice being 'prevention is the best treatment'¹⁵. Older texts^{12,13,17} fail to mention FSS as an entity; they see it as the sequelae in breakdown of proper and free joint movements. Indeed A T Still felt that a 'large percentage' of painful shoulders had the distal end of the clavicle pushed too far back¹³. He goes on to say 'I am very particular about making sure of the normal position of the clavicles without which we cannot expect freedom from misery in the regions of the shoulder'¹⁸. Texts on strain and counterstrain offer only a few techniques and these are mainly for 'home managed... pain relief'¹⁹.

A survey of 'acupuncturists, chiropractors, doctors, osteopaths and physiotherapists attitudes' to FSS¹² 'was carried out in 1996/7. The conclusions were that there seems to be a great deal of ignorance about FSS. Osteopaths mainly view FSS as having a 'multi-factorial' aetiology, requiring 'between 11-15 sessions of treatment for maximum benefit' (preferably in the frozen phase). 'Osteopaths, chiropractors and physiotherapists had a similar approach to treatment'. The osteopathic approach was based on the following four elements:

- Stretching tight soft tissue structures
- Neuromuscular technique
- Articulation into the painful range (increasing Range Of Motion)
- Exercises for rehabilitation of wasted muscles

Discussions with colleagues has yielded additional treatment approaches including:

- Addressing any associated 'osteopathic lesions'
- Treating the opposite side of the cervical spine
- Working on the postural compensations for FSS using muscle energy, active resisted and functional techniques
- Visceral techniques to the ligamentous structures of the abdominal viscera with their direct and indirect attachments to the diaphragm and shoulder girdle

Some practitioners claim success using cranio-sacral therapy. Others hold that the shoulder tissues are manifesting emotional blockages often asking the patient 'what is frozen in your life.'

Most authorities agree that a regime of physical therapy is beneficial for FSS. Unfortunately there is little or no unanimity in the diagnostic or therapeutic approaches to this painful and debilitating condition. From an extensive literature search neither medical orthodoxy nor osteopathy offer either of the above.

FSS could provide an excellent vehicle for extolling the virtues of a 'drug-free' osteopathic approach to treatment. It affords a homogenous research population. It has a well-documented natural history (unlike the notoriously 'labile' low back) and lends itself to both qualitative and quantitative research.

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