

Frozen shoulder

Overview

Background

Frozen shoulder (adhesive capsulitis) is a common, painful and sometimes disabling condition that can last for months or years. It affects around 2% of adults (Lundberg 1969). The characteristic symptoms are pain, stiffness, and limitation of active and passive shoulder movements (particularly external rotation of the joint) (DTB 2000). They may be severe enough to interfere with everyday activity (e.g. driving, dressing or sleeping), and may prevent some patients from working.

There is no universally accepted definition of frozen shoulder, and the cause is poorly understood (Naviaser 1987, Bunker 1997). It is thought that scar tissue forms in the fibrous capsule surrounding the shoulder joint (Bunker 1997), causing it to thicken and contract, so restricting shoulder movement. Frozen shoulder is most common in people aged 40-60 years and, in up to 20% of those affected, it will later develop in the other shoulder (Harryman 1998). Risk factors include female sex, older age, shoulder trauma and surgery, diabetes, and cardiovascular, cerebrovascular and thyroid disease (Speed 2006).

The aims of treatment are to relieve pain, minimise joint restriction and speed resolution of the condition (DTB 2000). Common treatment approaches include simple analgesics, nonsteroidal anti-inflammatory drugs, local corticosteroid injections and physiotherapy.

Clinical research

Some clinical trials suggest that acupuncture may improve recovery in patients with a frozen shoulder, either when used alone or in combination with physiotherapy, but more high quality studies are needed to confirm this (Cheing 2008, Ma 2006, Sun 2001). A Cochrane systematic review found little evidence to support or refute the use of acupuncture for shoulder pain but concluded that there may be short-term benefit with respect to pain and function (Green 2005). (See Evidence summaries)

Acupuncture can reduce pain, inflammation, muscle and joint stiffness, and so may help in the treatment of frozen shoulder, by: stimulating nerves located in muscles and other tissues, which leads to release of endorphins and other neurohumoral factors, and changes the processing of pain in the brain and spinal cord (Pomeranz, 1987, Zijlstra 2003, Zhao 2008, Cheng 2009); reducing inflammation, by promoting release of vascular and immunomodulatory factors (Kim 2008, Kavoussi 2007, Zijlstra 2003); enhancing local microcirculation, by increasing the diameter and blood flow velocity of peripheral arterioles (Komori 2009).

References

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Evidence summaries

Research	Conclusion
Reviews	
Randomised controlled trials	
Research on mechanisms for acupuncture	

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