Last modified on 18 July 2015, at 10:51

Adhesive capsulitis of shoulder

(Redirected from Frozen shoulder)

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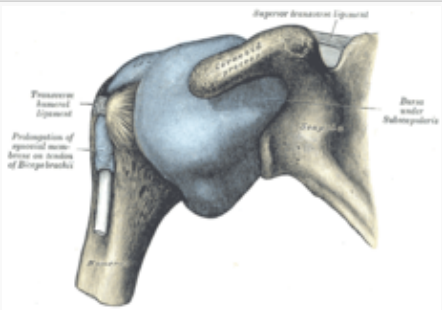

The right shoulder & glenohumeral joint.

Classification and external resources	
Specialty	Orthopedics
ICD-10	M75.0
ICD-9-CM	726.0
DiseasesDB	34114
MedlinePlus	000455
eMedicine	orthoped/372

Adhesive capsulitis (also known as **Frozen shoulder**) is a painful and disabling disorder of unclear cause in which the shoulder capsule, the connective tissue surrounding the glenohumeral joint of the shoulder, becomes inflamed and stiff, greatly restricting motion and causing chronic pain. Pain is usually constant, worse at night, and with cold weather. Certain movements or bumps can provoke episodes of tremendous pain and cramping. The condition is thought to be caused by injury or trauma to the area and may have an autoimmune component.

Risk factors for frozen shoulder include tonic seizures, diabetes mellitus, stroke, accidents, lung disease, connective tissue diseases, thyroid disease, and heart disease. Treatment may be painful and taxing and

consists of physical therapy, occupational therapy, medication, massage therapy, hydrodilatation or surgery. A physician may also perform manipulation under anesthesia, which breaks up the adhesions and scar tissue in the joint to help restore some range of motion. Pain and inflammation can be controlled with analgesics and NSAIDs.

People who suffer from adhesive capsulitis usually experience severe pain and sleep deprivation for prolonged periods due to pain that gets worse when lying still and restricted movement/positions. The condition can lead to depression, problems in the neck and back, and severe weight loss due to long-term lack of deep sleep. People who suffer from adhesive capsulitis may have extreme difficulty concentrating, working, or performing daily life activities for extended periods of time. The condition tends to be self-limiting and usually resolves over time without surgery. Most people regain about 90% of shoulder motion over time.

Signs and symptoms

Movement of the shoulder is severely restricted, with progressive loss of both active and passive range of motion.[1] The condition is sometimes caused by injury, leading to lack of use due to pain, but also often arises spontaneously with no obvious preceding trigger factor (idiopathic frozen shoulder). Rheumatic disease progression and recent shoulder surgery can also cause a pattern of pain and limitation similar to frozen shoulder. Intermittent periods of use may cause inflammation.

In frozen shoulder, there is a lack of synovial fluid, which normally helps the shoulder joint, a ball and socket joint, move by lubricating the gap between the humerus (upper arm bone) and the socket in the shoulder blade. The shoulder capsule thickens, swells, and tightens due to bands of scar tissue (adhesions) that have formed inside the capsule. As a result, there is less room in the joint for the humerus, making movement of the shoulder stiff and painful. This restricted space between the capsule and ball of the humerus distinguishes adhesive capsulitis from a less complicated, painful, stiff shoulder.[2]

Diagnosis

One sign of a frozen shoulder is that the joint becomes so tight and stiff

that it is nearly impossible to carry out simple movements, such as raising the arm. The movement that is most severely inhibited is external rotation of the shoulder.

People complain that the stiffness and pain worsen at night. Pain due to frozen shoulder is usually dull or aching. It can be worsened with attempted motion, or if bumped. A physical therapist, osteopath or chiropractor may suspect the patient has a frozen shoulder if a physical examination reveals limited shoulder movement. Frozen shoulder can be diagnosed if limits to the active range of motion (range of motion from active use of muscles) are the same or almost the same as the limits to the passive range of motion (range of motion from a person manipulating the arm and shoulder). An arthrogram or an MRI scan may confirm the diagnosis, though in practice this is rarely required.

The normal course of a frozen shoulder has been described as having three stages:[3]

- Stage one: The "freezing" or painful stage, which may last from six weeks to nine months, and 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 a 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 toward normal. This generally lasts from 5 to 26 months.

Imaging

Adhesive capsulitis is primarily a clinical diagnosis, though imaging may be used to exclude other causes of shoulder pain (e.g. a fracture, a dislocation or a rotator cuff tear) and depict findings that increase confidence in clinical diagnosis. Arthrography is usually regarded as the gold standard for imaging diagnosis.[4] Ultrasound and MRI may help in diagnosis by assessing thickening of the coracohumeral ligament. Both proximal and distal fibers of the ligament can be evaluated. Another ultrasound finding consistent with the clinical diagnosis of adhesive capsulitis is hypoechoic material surrounding the long head of the biceps brachii tendon at the rotator interval. In the painful stage, such hypoechoic material may demonstrate increased vascularity with Doppler

ultrasound.[5]

Prevention

To prevent the problem, a common recommendation is to keep the shoulder joint fully moving to prevent a frozen shoulder. Often a shoulder will hurt when it begins to freeze. Because pain discourages movement, further development of adhesions that restrict movement will occur unless the joint continues to move full range in all directions (adduction, abduction, flexion, rotation, and extension). Physical therapy and occupational therapy can help with continued movement.

Management

Management of this disorder focuses on restoring joint movement and reducing shoulder pain, involving medications, physical therapy, and/or surgical intervention. Treatment may continue for months, there is no strong evidence to favor any particular approach.[6] There is tentative evidence that low-level laser therapy may help.[7]

Medications frequently used include NSAIDs; corticosteroids are used in some cases either through local injection or systemically. Manual therapists like osteopaths, chiropractors and physiotherapists may include massage therapy and daily extensive stretching.[6] Another osteopathic technique used to treat the shoulder is called the Spencer technique.

If these measures are unsuccessful, manipulation of the shoulder under general anesthesia to break up the adhesions is sometimes used.[6]Hydrodilatation or distension arthrography is controversial.[8]Surgery to cut the adhesions (capsular release) may be indicated in prolonged and severe cases; the procedure is usually performed by arthroscopy.[9] Surgical evaluation of other problems with the shoulder, e.g., subacromial bursitis or rotator cuff tear may be needed.

Epidemiology

The incidence of adhesive capsulitis is approximately 3 percent in the general population. Occurrence is rare in children and people under 40 but peaks between 40 and 70 years of age.[6] At least in its idiopathic form,

the condition is much more common in women than in men (70% of patients are women aged 40–60). Frozen shoulder is more frequent in diabetic patients and is more severe and more protracted than in the non-diabetic population.[10]

People with diabetes, stroke, lung disease, rheumatoid arthritis, or heart disease are at a higher risk for frozen shoulder. Injury or surgery to the shoulder or arm may cause the capsule to tighten from reduced use during recovery.[2] Adhesive capsulitis has been indicated as a possible adverse effect of some forms of highly active antiretroviral therapy (HAART). Cases have also been reported after breast and lung surgery.[*citation needed*]

See also

- Calcific tendinitis
- Milwaukee shoulder syndrome

References

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This article contains text from the public domain document "Frozen Shoulder ", American Academy of Orthopaedic Surgeons.

External links

- "Frozen Shoulder" from the American Academy of Orthopedic Surgeons
- Siegel, Lori B.; Cohen, Norman J.; Gall, Eric P. (1999). "Adhesive capsulitis: a sticky issue" . *American family physician* **59** (7): 1843–52. PMID 10208704 .
- Radiology image sequence demonstrating CT guided shoulder hydrodilatation
- "Adhesive Capsulitis" from Arend CF. Ultrasound of the Shoulder. Master Medical Books, 2013.