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Adhesive Capsulitis

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Objectives

- 1. Describe the pathophysiology of Frozen Shoulder (Adhesive Capsulitis)
- 2. Describe the physical exam findings in a patient with Frozen Shoulder
- 3. Describe the treatment options for a patient with Frozen Shoulder



Frozen Shoulder

- Painful, stiff shoulder
- Vague, nonspecific terminology
- Many etiologies
 - Full and partial rotator tear
 - Calcific tendinitis
 - Glenohumeral/acromioclavicular arthritis
 - Cervical Radiculopathy



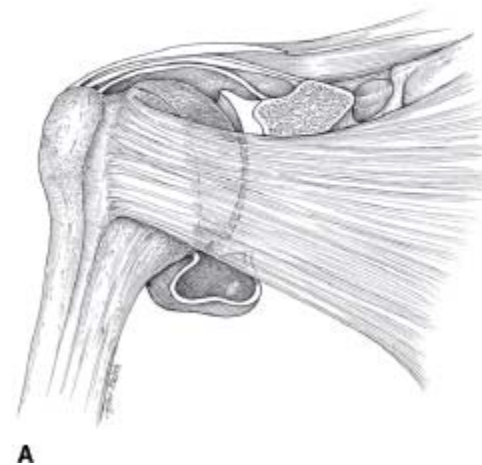
Adhesive Capsulitis

- Chronic inflammation of the capsule subsynovial layer
 - Capsular thickening
 - Fibrosis
 - Adherence of the capsule to itself and anterior neck of the humerus
- Pain and mechanical restraint to motion



Pathology

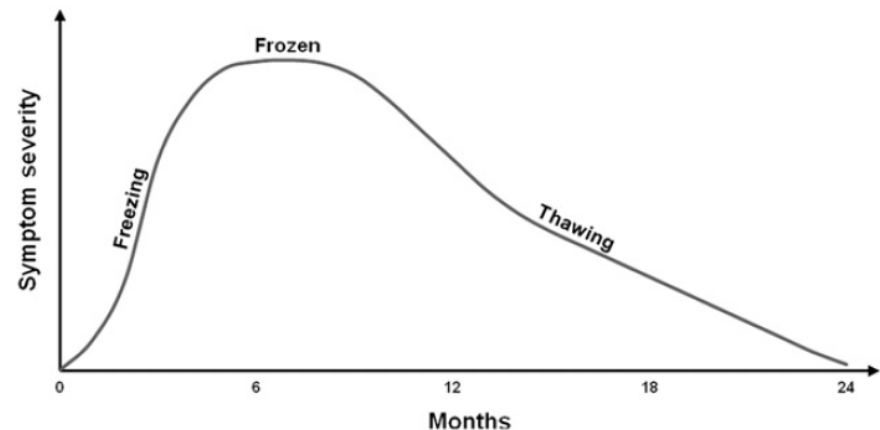
- Exact pathogenesis is unknown
- Secondary adhesive capsulitis
 - Trauma or surgery
- Primary (idiopathic) predisposing factors
 - Diabetes (I or II)
 - Prevalence increases with longer duration of diabetes
 - Thyroid disease
 - Parkinson's
 - Hypoadrenalism
 - Cardiac disease
 - Stroke





Natural History

- Four Stages
 - Painful stage
 - Insidious onset
 - Nonspecific
 - Freezing stage
 - Progressively worsening glenohumeral motion
 - Frozen stage
 - Active and passive glenohumeral ROM restriction
 - Minimal pain
 - Thawing stage
 - Absence of pain
 - Improved ROM



. J Shoulder Elbow Surg. 2011 Apr;20(3):502-14.



Clinical Presentation

- Poorly localized pain
 - If localized, usually in anterior and posterior capsule, radiating to biceps
- Progressive pain and stiffness
- Impairment in sleep



Clinical Presentation

- Physical examination
 - Loss of active and passive ROM
 - Best appreciated on passive external rotation
 - Increased compensatory scapulothoracic motion
 - Tenderness at deltoid insertion and anterior/posterior capsule with deep palpation



Imaging

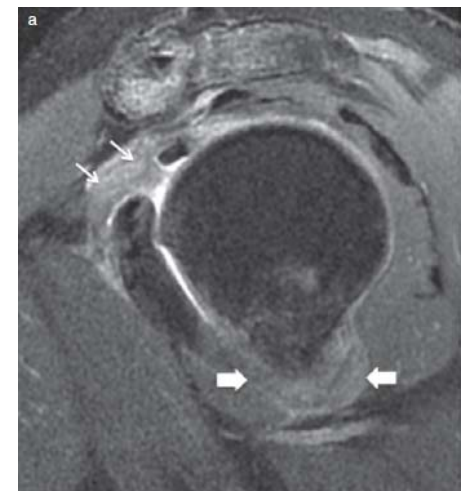
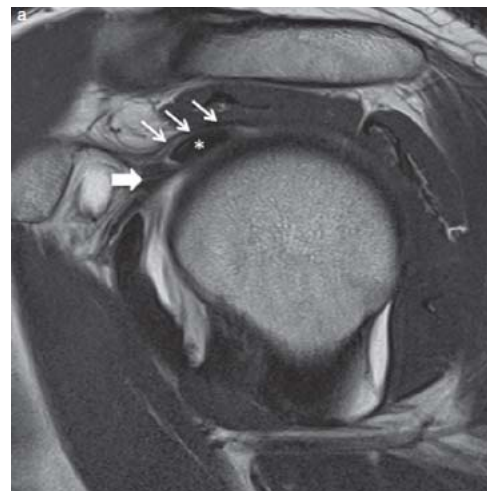
- X-rays typically normal
 - May show osteopenia of the humeral head and neck





Imaging

- MRI
 - Thickening of the dependent portion of the capsule
 - Scarring of the rotator interval
 - Located between subscapularis and supraspinatus





Treatment

- Condition is self-limited
 - Though may take months to years to resolve
- Anti-inflammatory medication
 - NSAIDs, oral corticosteroids
- Physical Therapy



Treatment

- Corticosteroid injection
 - Glenohumeral
 - Not effective in 3rd and 4th stages
- Hydrodilatation
- Invasive procedures
 - Manipulation under anesthesia
 - Capsular release



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Questions?





Sources

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