Clinical Integration of Osteopathic Manipulative Medicine

Family Medicine: Adhesive Capsulitis

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Introduction:

Adhesive capsulitis, often colloquially referred to as frozen shoulder, is an umbrella diagnosis describing different clinical conditions ultimately manifesting in painful restriction of both active and passive motion of the shoulder. Patients commonly lose mobility in internal rotation, abduction, and characteristically most severely in external rotation. Patients most susceptible to this condition, classically, are the elderly who undergo prolonged periods of shoulder immobility, the reasons for which can vary widely. The age range most affected is from 40-70 years of age. Other more susceptible patients include females versus males, those with diabetes -- particularly insulin dependent diabetes, those exposed to trauma, surgery, inflammatory diseases, or other regional pathologies affecting shoulder mobility.

Adhesive capsulitis can be primary, meaning that there are no factors from the patient’s history, physical examination, or radiographic examinations that can explain the patient’s loss of range of motion. It can also be secondary, where there is an etiologic factor that can account for the loss of range of motion such as trauma or surgery.

Patient presentations:

Classically, adhesive capsulitis presents in any of three phases: painful phase, stiffening phase, and thawing phase.

The painful phase is characterized by a slow onset of shoulder pain that may last for months. This is followed by a period of stiffening where range of motion is gradually lost, most particularly in the motions mentioned above, lasting several months to a year long. Following this, there is a period of thawing where there is gradual restoration of range of motion.

Differential diagnosis:

- Acromioclavicular arthropathy
- Autoimmune disease (systemic lupus erythematosus, rheumatoid arthritis),
- Biceps tendinitis
• Glenohumeral osteoarthritis,
• Neoplasm
• Rotator cuff tendinitis/tear
• Subacromial and subdeltoid bursitis

**Clinical pearls:**

• Adhesive capsulitis is a clinical diagnosis requiring that other pathologies including cervical musculoskeletal pathologies and other neurological conditions be ruled out first
• Other populations noted to be associated with adhesive capsulitis are patients with hyperthyroidism, ischemic heart disease, and cervical spondylosis

**OMM Integration:** There is a wide body of evidence supporting the validity and effectiveness of OMM in treating adhesive capsulitis. Atoun et. al. found that manipulation of the shoulder if done properly appeared to be safe and resulted commonly in marked improvement of range of motion and function. Brantingham et. al in a systematic review on manual and manipulative therapy for common shoulder pain and disorders found that there was a fair level of evidence in using these modalities effectively for problems including adhesive capsulitis.

OMT aimed at treating this condition should address articulation of the joint, regional myofascial restrictions, tenderpoints in regional muscles especially those of the rotator cuff. Stretching of the muscles regionally should also be encouraged.

**Osteopathic Structural Examination:** Structural examination of the upper extremity, cervical region, and upper thoracic regions should be performed, looking for dysfunctions in:

• Cervical spine and upper thoracic spine vertebral dysfunctions specifically C7-T5
• Tenderpoints associated with T1-T5
• Rhomboid Major/Minor
• Pectoralis Major
• Levator Scapulae
• Inhalation dysfunctions of ribs 1 and 2
• Clavicular dysfunctions
• Lateral and medial epicondylar tenderpoints
• Rotator cuff muscles
  - Supraspinatus
  - Infraspinatus
  - Teres Minor
  - Subscapularis

**Possible Treatments Options:**

• Spencer's technique with or without muscle energy techniques to address restrictions
• Pectoralis major counterstrain and muscle energy
• Cervical spine FPR, myofascial release, HVLA
• Thoracic spine FPR, myofascial release, HVLA
- Levator scapulae counterstrain and muscle energy
- Upper extremity epicondylar tenderpoint counterstrain
- Ribs 1 and 2 FPR
- Clavicular muscle energy techniques

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