



Literature Review: Conservative Treatment of Shoulder Pathologies

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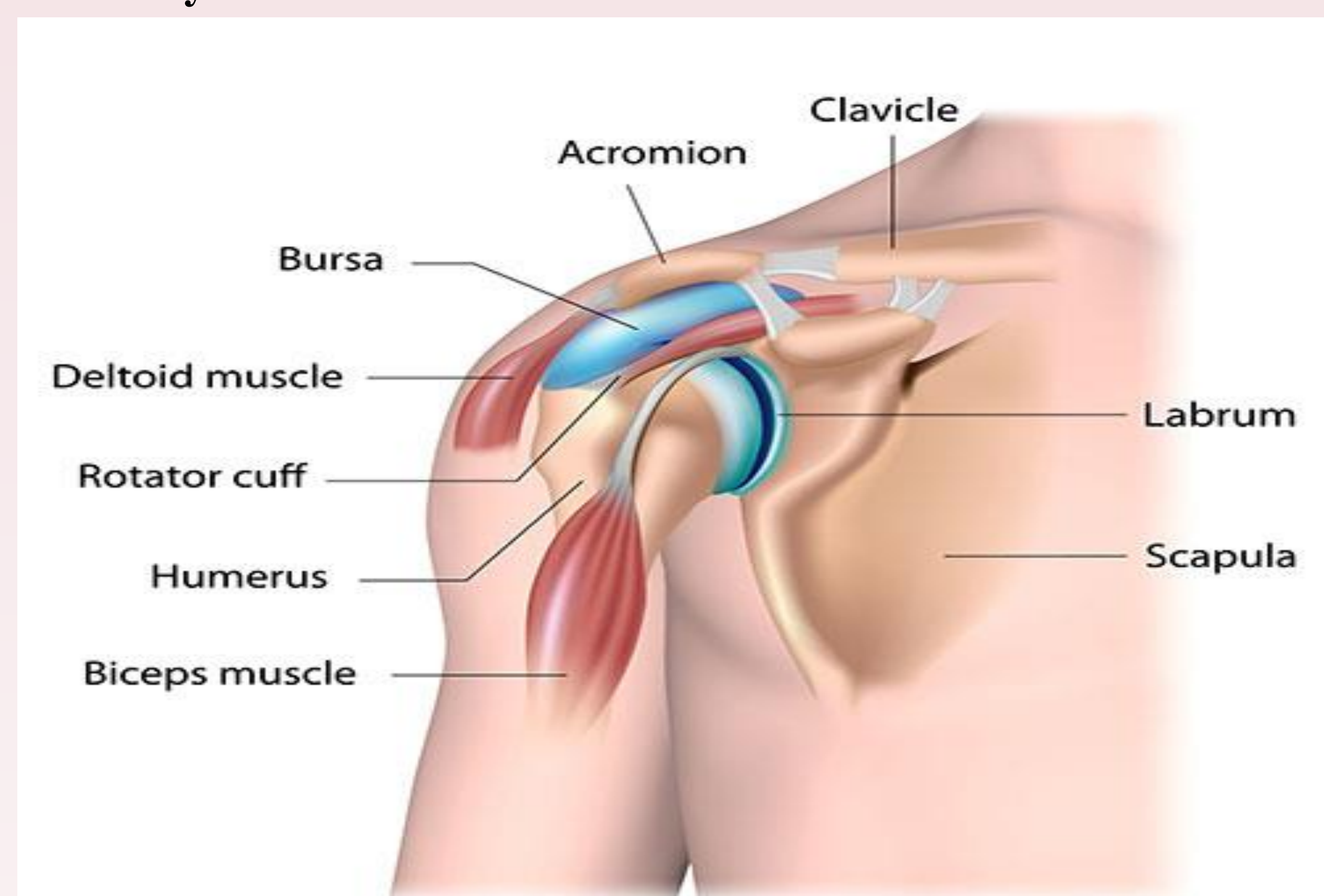
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Introduction:

Conservative treatment can be explained as the process of a patient's recovery without the need for a surgical procedure. Patients that are not candidates for a surgical procedure must rely on a conservative treatment plan. The shoulder is the most complex joint in the body and is highly susceptible to injury, due to the many bones, muscles, tendons, ligaments and other types of tissues within a confined area. Injuries such as dislocations, labral tears, or rotator cuff injuries may be treated conservatively.

Anatomy:



<https://www.msk.org.au/shoulder-pain/>

Injuries:

- Labrum
 - Superior labrum anterior posterior (SLAP) lesion
 - Bankart lesion
- Shoulder Dislocation and Subluxation
 - Anterior, inferior
- Rotator Cuff
 - Supraspinatus, infraspinatus, teres minor, subscapularis muscles
 - Strain, tendonitis, tears

Evidence for Conservative Treatment:

- Strength exercises increases stability, increases function, and reduces pain
- Scapular stabilization increases strength
- Muscular activity is beneficial for return to play
- Improves joint position with proprioception exercises
- Some essentials for conservative treatment include proprioception, strength, and endurance exercises
- Complex movements vs Basic movements (EMG study findings)
 - Basic exercises consisted of a pulling motion, forward punch motion, and elevation of the shoulders
 - Basic movement shown better movement through posterior deltoid, upper trapezius, infraspinatus, and triceps brachii
 - Complex movements consisted of a slow overhead throw and a rapid overhead throw.
- Complex showed better results in the middle deltoid, posterior deltoid, upper trapezius, and infraspinatus
- Well rounded program should focus on the kinetic chain
- Corticosteroid injection

Evidence Against Conservative Treatment:

- Poor results for patients were found with patients with multidirectional instability (MDI)
 - Program based from isolated muscle control, motion control of muscle, functional activities
- Conservative treatment for anterior-superiorly dislocation was found insufficient

Modalities:

- Electrical Stimulation
 - Transcutaneous electrical stimulation (TENS)
 - Inferential current (IFC)
 - Pre-Modulation
- Ultrasound
 - Thermal effects - Decrease joint stiffness, reduce muscle spasm, increase fiber extensibility
 - Nonthermal effects - Tissue regeneration, increase fibroblasts
- Cryotherapy (Ice)
 - Ice bag - Decreases pain, muscle inhibition
 - Cryokinetics - Decreases Pain, exercise stimulates blood flow, exercise reestablishes neuromuscular function
 - Game Ready - Decreases pain, reduce swelling through pump motion
- Thermotherapy (Heat)
 - Heat pack - Superficial circulation, muscle relaxation

Rehabilitation:

- Labrum
 - Strength, stability, and range of motion (ROM)
 - External and internal rotation, full can
 - Stretching
 - Slap lesion found with more common with excessive external rotation and is treated with an internal rotation program
- Dislocation and subluxation
 - Strength, stability, Active ROM
 - Adduction, flexion, extension, scaption
- Rotator Cuff
 - Strength and stability
 - External rotation, internal rotation, scaption, horizontal abduction, push-up with a plus

Conclusion:

Conservative treatment could be viable option. There is not enough research out to produce a positive outcome. The evidence found mentioned that conservative treatment is not a bad thing it just does not produce desirable results. Thus, implementing a conservative treatment may prove beneficial for people that are not candidates for surgery.

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