SLAP Lesions

SLAP (Superior Labrum Anterior and Posterior) lesions are specific shoulder injuries characterized by damage to the superior part of the labrum, a ring of cartilage that surrounds the shoulder socket. These injuries can occur from acute trauma, repetitive overhead movements, or degenerative changes and are often associated with shoulder pain, weakness, reduced range of motion, and a feeling of instability. SLAP lesions are classified into different types based on the location and extent of the labral tear. Type II is the most common and involves a tear that runs from the front to the back of the labrum and often affects the biceps tendon attachment. Treatment options vary depending on the type and severity of the injury and may involve rest, physical therapy, medication, or surgical intervention to restore shoulder function and alleviate symptoms. Effective management typically requires a personalized approach tailored to the individual's specific condition and needs.

PLAY PICMONIC

Mechanism of Injury

FOOSH (Falling on Outstretched Hand)

FOOSH to Fall On Outstretched Hand

FOOSH, or Fall on an Outstretched Hand/Arm, is one of the leading causes of acute SLAP Lesions. SLAP lesions are more likely to occur after a person stretches out the arm and hand in an attempt to stop a fall. The impact from the fall is often enough to generate the anterior to posterior force necessary to damage the soft connective tissue in the shoulder joint, leading to a SLAP Lesion.

Repetitive/Forceful Throwing Motions

Repetitive and Forceful Throwing Motions

Throwing motions repeatedly stretch the glenoid labrum, increasing the chance of a tear. This injury is common in some sports, such as football or baseball. However, SLAP lesions can also occur in other repetitive activities, such as cranking a lawn mower. Microtraumas can occur within the shoulder joint during forceful throwing motions due to shear forces between the connective tissue and surrounding bone structures. As these traumas continue to build, they increase the likelihood of a significant tear within the shoulder joint, ultimately causing a SLAP Lesion in some cases.

Lifting Heavy Weight

Lifting Heavy Weight

Lifting heavy objects or weights is a common cause of acute SLAP lesions. In these cases, the repetitive nature of weight lifting can stretch and strain the glenoid labrum. Overhead exercises have a higher incidence of causing SLAP lesions due to the angle of the force produced on the glenoid labrum.

Populations most affected

Athletes in Repetitive Throwing Sports

Baseball Player

Sports that rely on repetitive throwing or overhead motions, such as tennis, swimming, football, and baseball, increase the likelihood of SLAP lesions due to the amount of stress they place upon the superior labrum. The repetitive stress causes a buildup of microtraumas that, if not allowed to properly heel, can result in a “peel-back” effect of the glenoid labrum due to shear forces, sometimes resulting in SLAP Lesions.

People Older than 40 Years of Age

People with Greater-than (40) oz

After age 40, the superior glenoid labrum becomes less secure, most likely due to age-related changes altering the structural integrity of the connective tissue within the glenohumeral joint. As this accumulates, the likelihood of SLAP lesions increases, particularly if the individual is engaged in other behaviors such as heavy weight lifting or repetitive shoulder motion that further stresses the joint.

Clinical Presentation

Clicking and Popping Sound with Shoulder Movement

Clicking & Popping

Patients with SLAP Lesions may complain of a clicking or popping sound during shoulder movement, as well as a grinding sensation. These sounds normally occur due to increased shoulder instability and are typically prominent during overhead motions of the shoulder.

Anterior Shoulder Pain

Anteater Shoulder Pain-bolt

Patients with SLAP Lesions often report pain in the anterior-superior region of the shoulder. This pain is more intense as the shoulder is placed into external rotation and horizontal abduction and often presents with a combination of instability and impingement symptoms with complaints of “catching” or joint laxity during the aforementioned positions.

Dead Arm Syndrome

Dead Arm

Dead Arm Syndrome, also called recurrent transient subluxation, describes a marked reduction of the velocity and control of throwing ability due to pain, described as “paralyzing” and numbing. This injury is common in athletes such as pitchers who rely on continual throwing motions and is often a result of the shoulder joint being placed into maximum external rotation while being elevated or due to direct trauma or impact on the joint itself. The pain is often sudden upon onset and often significantly impacts the performance of patients afflicted with this issue.

Shoulder Instability

Shoulder Instable-table

SLAP lesions, specifically Type II and Type IV, can contribute to shoulder instability by compromising the stability of the labrum, which plays a crucial role in holding the humeral head securely in the glenoid socket. This instability can result in recurrent dislocations or subluxations, and it often requires a comprehensive evaluation and appropriate treatment, which may include physical therapy, surgical repair of the labrum, or other interventions to restore shoulder stability and function.