

ROTATOR CUFF IMPINGEMENT

Overview

Impingement refers to the changes that takes place in the rotator cuff due to strain, mechanical pressure and rub of the rotator cuff underneath the acromion and can lead to rotator cuff tears. Part of the rotator cuff is surrounded by bone. Where the injury of the rotator cuff takes place, it start swelling and start rubbing against the nearby bone. This leads to irritation of these tendons. Over time it can lead to degeneration and eventually a rotator cuff tear.

Causes

The most common place of impingement is the supraspinatus tendon. During high elevation of the arm, the supraspinatus tendon and bursa rubs against the under surface of the acromion and coraco-acromion ligament. This pinch of the tendon can cause inflammation and when it continues it can damage the tendon where repetitive movements are performed. This can lead to thickening of the tendon, further limiting the space for the tendon to move through. Blood supply to the tendon is reduced. Bony outgrowths on the bone can rub against the tendon and muscle and create further irritation, inflammation and fraying.

Symptoms

Rotator cuff impingement typically starts with a gradual onset of pain that is brought on when the arm is elevated above shoulder height and the arm is rotated externally or internally at the same time. The pain of rotator cuff syndrome occurs in front of the shoulder and it radiates over the outer part of the arm towards the elbow. This pain can eventually cause limitation of every day activities and can wake you up at night.

Classification

More than one classification is present. The common one that is used is the one by Neer which is based on the different stadia of impingement. Stadium 1 occurs in persons in their mid twenties and is usually reversible. Stadium 2 is the further development of stadium 1 and is more common in people in their mid thirties to forties and comprise of irreversible changes in the tendon. Stadium 3 is usually encountered in people of 40 years and older. It follows on chronic inflammation over years and tendon rupture can develop in these cases.

Treatment

Adjustment of activities, rest, ice packs on the shoulder, non-steroid anti-inflammatory medication and exercises that improve range of motion and strengthen the shoulder girdle is first line treatment. When pain continues, corticosteroid injections can be applied to limit inflammation that is caused by impingement.

It might take several weeks for symptoms to improve. When the symptoms did not clear up after several months, surgery might be indicated. Surgical techniques are aimed at relieving the impingement of the bone on the tendon and to remove diseased tissue. Often a piece of the overlying bone must be removed and when a tear is present, repair of this tear will be indicated.