

Shoulder Pain

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Snapping Scapula Syndrome

This condition is poorly understood, and often missed clinically. While the literature generally lists snapping scapula as rare, more recent evidence suggests it quite common, yet often goes unrecognised (1,2). Cited causes include postural dysfunction, scapular dyskinesia, muscle imbalances, & repetitive overhead activities. Possible anatomical abnormalities include an irregularly shaped superior scapular angle, tumorous conditions, and changes consistent with interstitial fibrosis in the surrounding musculature (3,4). While bony changes were once thought to be a common cause, the majority of cases are probably more soft-tissue in nature (1,2). There are between 2 to 4 bursae in the region of symptoms, and one or more of these may be involved. In particular, the infraserratus and supraserratus burasae can become inflamed (1). Chronic changes can occur, resulting in thickening and fibrosis.

Presentation

Snapping scapula tends to occur in young active individuals (1). It is said to be more common in overhead sportspeople, particularly pitchers / throwers, and golfers, and in manual workers who do a lot of work overhead. Patients often present with neck pain and a feeling of crepitus or grating which they may find difficult to localize. However palpation will often reveal tenderness in the superomedial scapular region (and less commonly in the inferomedial scapula). Overhead activities and shrugging will aggravate the condition (1,3). In my experience, symptoms are often readily reproduced with active scapular protraction & retraction with the

arm at the side. Scapular compression during the aggravating movement will often worsen symptoms (3).

Imaging

Plain x-ray findings are generally normal, and CT scanning, possibly with 3D reconstruction, is the investigation of choice if bony changes are suspected (3,4).

Treatment

Conservative: Up to 6-12 months of conservative treatment is advised before considering surgery (1). This includes active rest (minimizing overhead activities), ice, postural correction, strengthening and stretching, and sometimes corticosteroid injections into the involved bursa. Postural correction includes minimizing thoracic kyphosis and shoulder protraction, strengthening for the upper trunk and deep neck flexors, and core strengthening (1,2,3,4). Tight muscles may include pectoralis major and minor, levator scapulae, upper trapezius, & latissimus dorsi (2). Muscles often requiring strength and endurance training include middle and lower trapezius, serratus anterior, and the rotator cuff (1,2).

In my experience, the neck will often require treatment as well. Releases through the upper medial scapular muscles, particularly levator scapulae and upper trapezius, can sometimes give moderate and immediate improvement in symptoms. Shoulder taping or bracing can sometimes help in the short term.

Surgery: When conservative management fails, or

there are suspected bony causes, the results of surgery are generally reported to be very good. This would generally involve bursectomy and / or resection of the superomedial scapular angle. Traditionally, this has been performed as an open procedure, however the more technically demanding arthroscopic procedure is gaining popularity (1,4).

References:

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