Evaluation and Management of Adult Shoulder Pain

A Focus on Rotator Cuff Disorders, Acromioclavicular Joint Arthritis, and Glenohumeral Arthritis

April Armstrong, BSc(PT), MD, MSc, FRCSC

KEYWORDS

• Shoulder • Rotator cuff disorders • Rotator cuff tears
• Acromioclavicular joint arthritis • Glenohumeral joint arthritis • Examination
• Evaluation • Treatment

KEY POINTS

- Limited passive external rotation is a salient feature of glenohumeral joint arthritis but not for rotator cuff disease or acromioclavicular (AC) joint disease.
- Plain radiographs may show AC joint arthritis, but unless they are tender on palpation in this region, this is a clinically insignificant radiographic finding.
- Rotator cuff disease is best categorized into 3 different groups to help guide treatment. Group 1 and Group 3 are best treated nonoperatively, whereas group 2 should be given consideration for earlier surgical treatment.
- There are risks of nonoperative treatment of rotator cuff tears, which include tear progression, muscle fatty degeneration, tendon retraction increasing difficulty with tendon mobilization and repair, and potential for future arthritis.
- Initial treatment of most nontraumatic shoulder problems involves a physical therapy program, medication such as nonsteroidal antiinflammatory drugs, and joint injections. However, early surgical repair is considered for rotator cuff tears in a physiologically younger individual with an acute tear or who has a chronic rotator cuff tear with minimal irreversible changes on magnetic resonance imaging.

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Department of Orthopaedics and Rehabilitation, Bone and Joint Institute, Penn State Milton S. Hershey Medical Center, 30 Hope Drive, Building A, Hershey, PA 17033, USA
E-mail address: aarmstrong@hmc.psu.edu

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INTRODUCTION

Shoulder pain is a common reason for an office visit with a primary care physician, in some reports as high as 30% of referrals.[1–3] The focus of this article is on the evaluation and management of adult shoulder pain with a specific focus on rotator cuff disorders, acromioclavicular (AC) joint arthritis, and glenohumeral arthritis. Typically, these shoulder conditions are seen in individuals older than 40 years. Under extenuating circumstances, these entities may be seen in younger individuals, but there is usually a special circumstance, such as a history of trauma or previous surgery.

PATIENT HISTORY AND PHYSICAL EXAMINATION

Patients with a rotator cuff problem usually present with 1 of 2 typical histories. The first is a history of an abrupt onset of shoulder pain associated with a traumatic event, such as a fall on an outstretched arm or something as trivial as reaching above shoulder height and suddenly feeling a sharp pain. The patient may describe, "something tore in the shoulder." The second is a history of a gradual onset of aching shoulder pain that has not improved over time and the patient cannot recall any specific event or reason for the shoulder pain. Patients with shoulder arthritis, adhesive capsulitis, and AC joint arthritis tend to have more of a gradual onset of pain. Identifying aggravating and alleviating factors for the pain can also help to characterize the shoulder problem. Rotator cuff disease typically hurts more with elevation above the shoulder and is less painful at waist level. Adhesive capsulitis and arthritis tend to be painful with any shoulder motion. AC joint arthritis is often painful when reaching across the body (**Table 1**).

Often with rotator cuff disease, the patient describes the pain near the insertion of the deltoid in the lateral upper third of the arm rather than specifically at the shoulder. The patient may grab the whole side of the shoulder and describe pain in this region. The patient may describe the pain as less intense at rest during the day with worsening of their symptoms with movement of the shoulder, particularly with activities requiring reaching overhead, and at night, when they have fewer distractions for their pain. The pain experienced with adhesive capsulitis is intense, particularly at night, and also during the day, and is not relieved with rest, which differentiates it from a rotator cuff problem. Patients with glenohumeral arthritis or adhesive capsulitis are less specific about the location of the pain, but they focus usually on the fact that motion of the shoulder worsens their pain. Patients with AC joint arthritis are typically specific about the location of the pain and localize the pain right at the AC joint, on top of the shoulder. Patients may also show a positive cross-body test.[4] The examiner passively forward flexes the shoulder to 90° and horizontally adducts the arm as far as possible, which provokes the AC joint pain. Palpable pain localized over the AC joint is common. An injection of local anesthetic and corticosteroid into the AC joint can confirm whether this joint is a significant reason for their pain if it relieves the pain they are experiencing.

Table 1
Distinguishing features of pain

	Distinguishing Features of Pain	
	Onset	**Aggravating Factors**
Rotator cuff disease	Sudden or gradual	Overhead elevation
AC joint arthritis	Gradual	Reaching across the body
Glenohumeral arthritis	Gradual	Any shoulder motion