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IMAGES IN EMERGENCY MEDICINE

Trauma

Man with sharp pain in left upper back

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A 59-year-old male presented to the emergency department after experiencing sharp pain down his left upper back while using a shoulder press at the gym. Pain worsened with movement of the left upper extremity. The patient denied history of connective tissue disease or previous musculoskeletal injuries. His physical examination is shown in Figure 1. A magnetic resonance imaging scan was obtained, and its findings are shown in Figure 2.

1 | DIAGNOSIS: ACUTE TRAUMATIC TEAR OF LATISSIMUS DORSI MUSCLE

The patient's magnetic resonance imaging (MRI) scan revealed a high-grade tear of the latissimus dorsi muscle (Figure 2). This was the initial concern after performing his physical examination, which demonstrated a noticeable asymmetry in his upper back (Figure 1).

FIGURE 1 Photograph of patient's back demonstrating asymmetry of the posterior lateral fold of the left axilla. There was edema and a palpable divot over this area

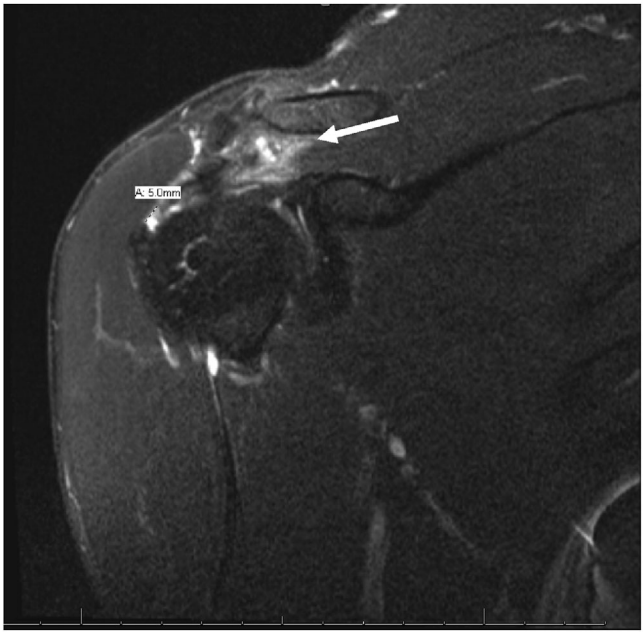

FIGURE 2 MRI of patient's left upper extremity demonstrating a high-grade muscle tear inferolateral left latissimus dorsi, with secondary intrafascial large hematoma

The patient was discharged home with orthopedic follow-up. Orthopedics opted to manage conservatively with rest, ice, and physical therapy.

Traumatic tears of the latissimus dorsi are rare and most typically associated with athletes performing overhead movements resulting in forceful adduction or external rotation against resistance.[1] Individuals most at risk for these injuries include baseball pitchers, jet skiers, rock climbers, golfers, and CrossFit athletes.[1] Physical examination often demonstrates pain at the posterior shoulder where the muscle inserts on the floor of the bicipital groove of the humerus, edema overlying the injury site, loss of the posterior axillary fold, or a soft tissue mass along the posterolateral chest wall.[2] Patients often will have decreased range of motion with external rotation, internal rotation, flexion, and abduction at the shoulder joint.[2] MRI of the affected extremity is the recommended imaging modality of choice; however, ultrasound can identify disruptions in the muscle most commonly at the myotendinous sections.[3] If MRI is available, a non-contrast study of the proximal humerus should be ordered. Limited literature exists on this condition, and evidence supports favorable outcomes with conservative management. Surgery often is reserved for elite athletes.[4] Following surgery patients are expected to return to light activity at 3-4 months and return to competition around 6-8 months.[5]

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