PARTIAL TEAR OF THE LATISSIMUS DORSI FROM THE COSTAL ORIGIN IN A COLLEGIATE FOOTBALL PLAYER
Valvano CD, Murtha CR, Janik GK, Knouse CL: King's College, Wilkes-Barre, Pennsylvania

**Background:** A 19-year-old male collegiate football quarterback reported to the Athletic Trainer complaining of right shoulder pain with throwing. The athlete stated he injured his shoulder while throwing approximately two weeks prior, but was fully functional with activity. The athlete had a previous history of right shoulder dislocation. Upon evaluation, the athlete presented with edema, visual muscle spasm, discoloration, and point tenderness over the axillary border of the right scapula. The athlete also had decreased active and passive ranges of motion on the right side with horizontal adduction. Manual muscle testing showed normal strength but the athlete had pain with latissimus dorsi, infraspinatus, teres major, and teres minor tests. Shoulder joint mobility and neurovascular testing were within normal limits. The athlete did not present with any positive upper extremity special tests. **Differential Diagnosis:** Teres Major Strain, Teres Minor Strain, Infraspinatus Strain, Latissimus Dorsi Strain, Avulsion Fracture of the Latissimus Dorsi from its insertion at the humerus. **Treatment:** Initial shoulder MRI and diagnostic imaging results appeared negative, showing no structural abnormalities. Initial treatment consisted of active assisted range of motion exercises and electrical stimulation. It was established that the initial MRI focused on the shoulder and did not illustrate inferior enough on the lateral thoracic wall and therefore a second MRI was ordered. Subsequent MRI results showed a partial tear of the latissimus dorsi muscle from the costal origin. After a period of unresolved pain and decreased range of motion, the athlete also received a second opinion from an additional orthopedic specialist who concurred with the diagnosis. Treatment following positive MRI results consisted of manual therapy, range of motion/flexibility, and strengthening exercises. After three months of traditional therapy with Certified Athletic Trainers, the athlete partook in self treatment and rest. As the athlete progressed he was able to return to the normal football strength and conditioning program within three months post-injury. At five months post-injury, the athlete was fully functional and able to begin a progressive throwing program. **Uniqueness:** The latissimus dorsi typically does not tear from the costal origin but rather the mid section of the muscle belly or avulses from the insertion. Also, because the latissimus dorsi is such a large muscle, straining does not typically result in tearing of the muscle fibers. Furthermore, the mechanism of injury is rare in that the throwing motion caused such a severe injury in a trained throwing athlete. **Conclusion:** A throwing mechanism of a football quarterback does not usually result in a partial tear of the latissimus dorsi at the costal origin. Athletic Trainers should be aware that these incidents do in fact occur and must be recognized in order to provide appropriate treatment. Further diagnostic imaging should be ordered if injury is still suspected after initial shoulder MRI results return negative. **Word Count:** 460