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Acute Rupture to the Olecranon Bursa in a Collegiate Football Player

Lindsay Davis
Walsh University Sports Medicine, ldavis74@kent.edu

Ashley King
Walsh University Sports Medicine, aking@kent.edu

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Objective: The objective of the case study was to inform and educate medical personnel of different signs and symptoms this condition can present as well as treatment routes for an acute olecranon bursa rupture.

Background: Patient is a 21-year-old male, D2 football player who has suffered from an acute rupture to his olecranon bursa. The patient had a history over the 2015 season of repeated impacted falls on the elbow-causing there to be slight discomfort and pain to the area. After the third game of the season he presented with increased edema, pain, discoloration and limited range of motion to the humeroradial joint.

Differential Diagnosis: The initial diagnosis was bursitis, fracture, elbow capsule rupture, muscle tear, and ligamentous rupture. Muscle and ligament tear were ruled out due to no decrease in strength. Compartment syndrome and infection was a concern due to an increased redness in hand and abrasion over the injury site. Treatment: Diagnostic imagining in the form of an X-Ray was mandated, with no evidence of a fracture. Antibiotics and monitoring signs and symptoms of infection occurred to eradicate any form of possible infection. To decrease edema, milking massage with ball squeezes was performed. Game ready and electrical stimulation were also used. Polymem™ was used to decrease ecchymosis to the area. Patient wears custom shock pad for deflection and absorption of impacts on a daily basis.

Uniqueness: There were many differential diagnoses with his condition; it took a week to diagnosis and narrow down the injury. Hard and pitting edema and redness in hand, made it difficult to diagnose. There were two weeks before we were able to retract swelling from the area. As swelling dissipated, after every game he would present as if it were day one of injury. The bursa has repaired as of current day with mild to moderate swelling to the injury site. A ruptured olecranon bursa is not an ordinary injury and treatment protocol was adjusted for the needs of the patient, especially due to repetitive trauma.

Conclusions: The patient injured the edema, ecchymosis and decreased range of motion to his posterior elbow, specifically the olecranon bursa. There were many differential diagnoses but the final decision concluded that a complete rupture to the olecranon bursa. Treatment was continually set back due to the continued impacts from activity the athlete endured. It was crucial for the athletic trainer to maintain positive control over the rehabilitation process due to an array of negative complications that can occur if neglected. With access to an athletic trainer on a daily basis the athlete was able to achieve full active range of motion and continue on with their athletic carrier.

Key Words: Olecranon, Bursa, Fracture, Acute, Rupture, Inflammation, Capsule.