

Arm pain and weakness – Football

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HISTORY: 21 year old male with unremarkable past medical history presented to the Emergency Department (ED) via ambulance with left arm pain and weakness after a tackle during football practice. Patient was running at high speed following a kick off and tackled another player leading with his left shoulder and head extended to the right. Patient immediately had burning pain radiating down his distal left arm in a circumferential pattern. Associated symptoms included weakness, paresthesias, and decreased sensation. Patient did not lose consciousness. He denied previous neck injury.

PHYSICAL EXAMINATION: Patient was placed in a C-collar and on to a backboard at the field by EMS. Evaluation in the ED revealed decreased motor strength of the left upper extremity, specifically shoulder abduction, biceps flexion, triceps extension, and wrist extension. Patient had sensory deficit throughout the entire left upper extremity. There was no cervical spine tenderness. Extremities were atraumatic without cyanosis or edema.

DIFFERENTIAL DIAGNOSIS: 1. Brachial plexus injury 2. Cervical fracture 3. Cervical dislocation 4. Spinal cord contusion 5. disc herniation.

TEST AND RESULTS: CT C Spine was negative for acute fracture or dislocation. XRay of the left shoulder, elbow, forearm, humerus, and wrist were negative for acute fracture. MRI of the cervical spine showed no injury to the spinal column or cervical cord. Increased T2 uptake near left cervical nerve roots suggested brachial plexus injury.

FINAL/WORKING DIAGNOSIS: Brachial plexus injury.

TREATMENT AND OUTCOMES: 1. Discontinuation of C-Collar given no injury to cervical spinal column or cord. 2. Supportive sling for patient's left arm. 3. Outpatient nerve conduction study in 3 weeks time. 4. Physical therapy for the remainder of football season, focusing on chest out posturing, concentric and eccentric loading at various speeds and directions. 5. Weekly follow up with doctor and returning to play once complete resolution of symptoms. 6. Enhanced protective equipment, including high riding shoulder pads and neck rolls.