Two Time Posterior Clavicle Dislocation in Teen Football Player: A Case Report

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**Background:** A 15 year-old male high school varsity football player presented with significant pain at the proximal end of his right clavicle. During a game the athlete was tackled from the front. The mechanism of injury was a direct posterior blunt force from the front. After the original hit, he stayed in the game. On the next play he went to tackle another player, landing on the ground on his right shoulder. Immediately after, the athlete came off the field favoring his right arm. The athlete presented with difficulty breathing and anxious behavior. The athlete has a history of right posterior sternoclavicular joint dislocation. Immediately, the athlete reported a similar feeling as his injury from 1 year and 2 months prior. The mechanism of injury was similar, but he took a charge during a basketball game during his first injury. The previous injury was surgically reduced three days after the initial injury. The initial diagnosis in the previous injury was a shoulder sprain that was later revealed as a posterior sternoclavicular dislocation after proper diagnostic testing. When exposing the injured area, observation revealed deformity of the injured side resulting in asymmetrical sternoclavicular prominences. The prominence of the sternoclavicular joint felt on the uninjured side was not palpable on the injured side. The athlete reported pain that radiated through his shoulder with specific significant point tenderness at the right sternoclavicular joint, similar to his previous dislocation. Immediate referral and proper diagnostic testing lead to reveal he had dislocated the right clavicle at the sternoclavicular joint posteriorly, again. **Differential diagnosis:** Clavicle fracture, sternoclavicular joint sprain, acromioclavicular joint sprain, dislocated sternoclavicular joint.

**Treatment:** Rapid deterioration of his dyspnea and previous medical history resulted in the athlete being taken immediately to the emergency room. A CT scan revealed a posteriorly dislocated sternoclavicular joint. The patient underwent emergency surgery to reduce and repair his dislocated clavicle. The patient was immobilized for 6 weeks because of the increased risk of repetitive dislocation prior to starting rehabilitation. His rehabilitation focused on grip, shoulder, rotator cuff, and back strengthening in addition to restoring range of motion. **Uniqueness:** This was the patient’s second posterior dislocation of the right clavicle at the sternoclavicular joint. His first dislocation was initially radiographed with a standard chest x-ray and the dislocation was not able to be detected at that time. Both were surgically repaired. A more conservative approach was taken after this second surgery to ensure proper healing to mitigate the risk of future dislocations. **Conclusions:** Athletic trainers should be aware of the mechanisms of injury and presentation for a posteriorly dislocated clavicle. Posterior clavicle dislocations can be life threatening and are not typically diagnosed with a standard chest radiograph. There are both open and closed reduction options available to reduce a posteriorly dislocated clavicle. It is important to know when each reduction is appropriate. Conservative management post surgery is critical to ensure healing of the repaired joint to mitigate the risk of future dislocations. **Relevant Evidence:** A standard x-ray is not an appropriate diagnostic tool for this injury. Instead a serendipity view that allows bilateral comparison of the structures is more appropriate.† A CT scan is the most ideal diagnostic tool in this case because sprains, strains and dislocations can be easily differentiated.†

**Word Count:** 571