CASE DISCUSSION

- Initial injury in early August so not an acute injury
- Due to remodeling that had already occurred, reduction of the joint would have disrupted the healing process.
- Due to reinjury in September, it was decided to restart the clock for this repeat injury.
- With the high risk of posterior SC joint dislocation, recommended a longer period of healing before returning to play.

INTRODUCTION

- Sternoclavicular joint injuries are 3% of shoulder girdle injuries. Posterior dislocations are less common than anterior.
- Swelling may make direction of dislocation difficult to determine
- Dislocation can be due to direct force to the clavicle or indirect force to the shoulder [3].
- To displace posteriorly, an anteromedial force is applied to the joint [1] or posterolateral compression occurs on the shoulder.
- With subluxation posteriorly, there is a risk of compressing structures such as the trachea and vasculature. This can cause dyspnea, choking, or hoarseness [2].
- Anterior chest and shoulder pain that is exacerbated by laying supine [3].

CASE SUMMARY

- 14 yo male hockey player presented on Sept 13th with lower neck and upper mid back pain associated with tightness in the right side of the neck and thoracic region.
- 1 week prior, he was hit in the right upper side which worsened a prior injury that occurred 1 month ago.
- Seen by a chiropractor Sept 12th and referred to a specialist for concern for T1 fracture.
- Exam showed R SCJ tenderness to palpation with swelling, erythema; normal motor, sensory and circulatory exam. Neck exam had subtle stiffness without tenderness.
- XR and CT showed comminuted, avulsive fracture of medial R clavicle at SC joint with slender fracture fragments and mild posterosuperior subluxation of the medial R clavicle. Plan: non-surgical management as fracture was minimally displaced
- Activity modification with gradual PT and rehabilitation that would lead to return to activity.
- Follow up on Sept 23rd: denied any pain in the area or motion limitations.
- Follow up on October 14th: enrolled in PT with goal of strengthening muscles around the fracture site.
- CT on October 11th showed interval healing and partial bridging callus. Discrete fracture planes remained visible. Posterosuperior subluxation unchanged.
- Plan: PT and introduce a return to play

CONCLUSIONS

- Uncommon but should be considered with injury secondary to anteromedial force.
- Mediastinum houses vital structures that can be compressed or damaged causing life threatening injury.
- CT is the most helpful imaging as it provides location of the dislocation as well as assessment of mediastinal structures [2].
- Treatment of choice in acute setting (within 7-10 days of injury) is closed reduction to help promote stability of the SC joint [4].
- Lateral traction is applied to reposition the clavicle [3]
- ROM exercises can be started a month after injury.
- Returning to full activity usually takes around 2-4 months [3].
- Time is an important factor in cases of bone healing, though establishing a date can be difficult for repeat injuries.

REFERENCES