

A Case Study Presentation on a Dislocated Subcondylar Fracture of the Mandible in an Intramural Football Player: The Importance of Medical Referral.



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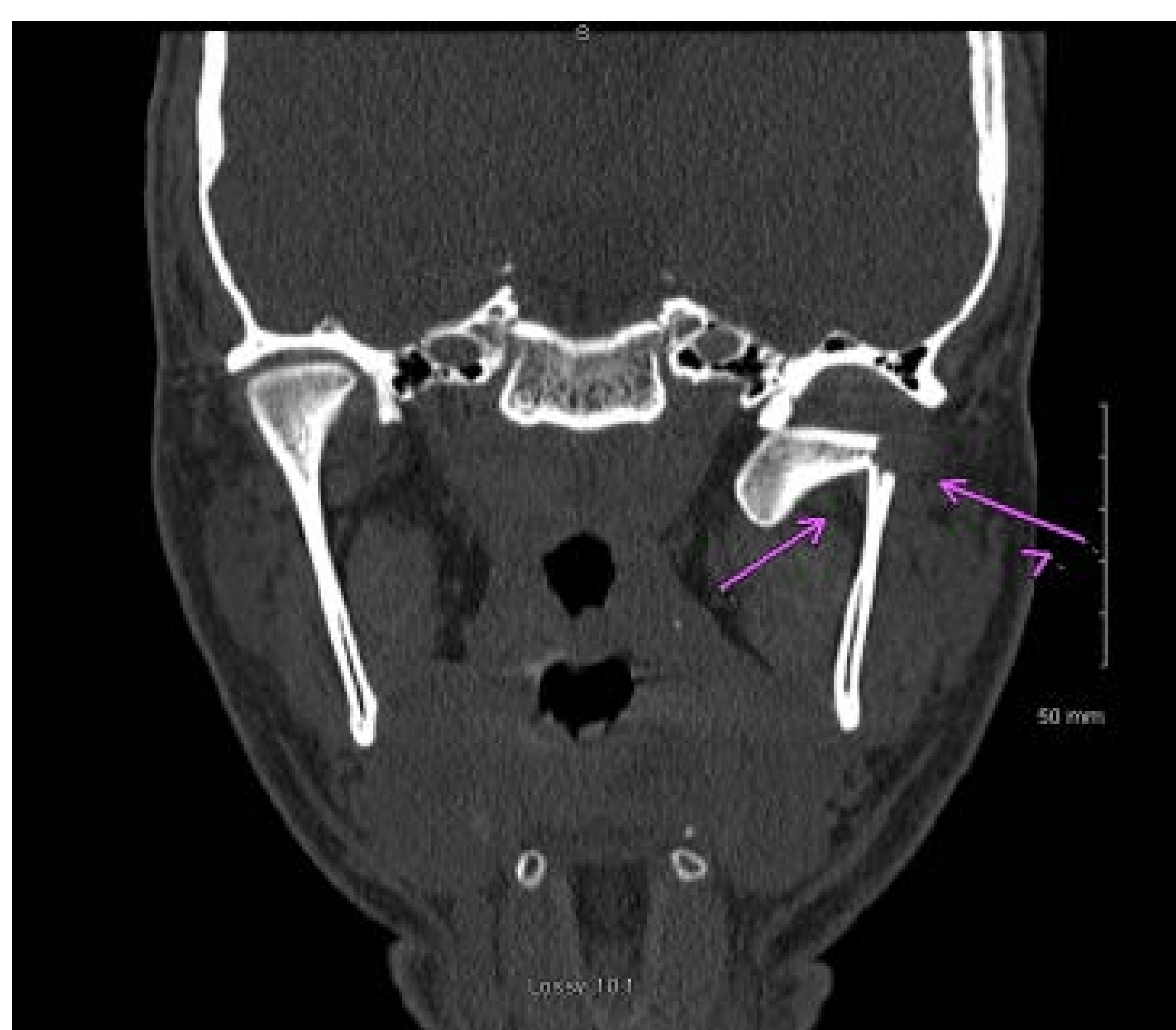
Purpose

The purpose of this case report is to demonstrate the necessity for immediate medical referral. As athletic trainers, the need to recognize injuries that indicate immediate medical referral is crucial to the well being of the athlete. Prompt transportation to the proper medical personnel is important in preventing life-threatening scenarios.

History

A male intramural football player was struck in the left side of his jaw by another player's helmet. The athlete did not lose consciousness but presented with malocclusion and the inability to open and close his jaw. He was diagnosed with a dislocated subcondylar fracture of the left mandible and underwent a reduction of the dislocation by the Emergency Room physician. The following day, the player underwent a closed reduction of the left subcondylar fracture. The athlete's medical and social history proved to be noncontributory to the injury.

Athlete's CT Scan



Differential Diagnoses

The athlete presented with sharp pain to the left temporomandibular joint and was unable to get up due to the pain. He was immediately examined and cleared for both obstruction of his airway and an injury involving the cervical spine. After demonstrating sharp pain in the temporomandibular joint along with malocclusion of his right row of teeth touching his left row, he was assessed for a possible temporomandibular joint dislocation. However, when he talked, his entire jaw moved and appeared unstable warranting the need to consider a mandibular fracture. Reduction of the dislocation was not attempted on the sidelines due to a suspected fracture, and the player was immediately sent to the Emergency Room. The athlete underwent a reduction of the dislocated subcondylar fracture by the Emergency Room physician and an audible and palpable reduction was indicated. On the day of admittance, September 22, 2013; CT scans of the athlete's brain and C-spine were ordered and presented no acute changes. The CT of maxillofacial area without contrast showed a fracture of the mandibular ramus with a dislocated mandibular portion of the temporomandibular joint. The left zygomatic arch was without fracture and no other mandibular fracture was present. Nasoseptal deviation to the left was indicated.

Diagnosis

The CT of the maxillofacial area without contrast demonstrated a left mandibular ramus fracture with the most cephalad left mandibular portion dislocated from the temporomandibular joint and the fracture fragment deviated medially and inferiorly.

Treatment

The patient underwent the procedure for a closed reduction of the left subcondylar fracture on September 23, 2013. He was placed into intermaxillary fixation using 25 guage wire loops and responded to the procedure well. Post reduction CT and x-rays were completed and demonstrated an essentially stable left mandibular fracture with persistent dislocation of the left mandibular condyle relative to the fossa. Physical therapy following maxillomandibular fixation is indicated.

Reference

Ryan Foreman, M.D. – South Bend-Notre Dame Sports Medicine Fellowship & Memorial Hospital of South Bend.

Prognosis

A period of maxillomandibular fixation with a jaw wired diet is required followed by physical therapy. Malocclusion and risks of nonunion may persist following recovery as well as the risk for long-term temporomandibular joint problems.

Athlete's Post Reduction

