Subtalar joint (STJ) dislocations are rare, typically high energy, injuries representing approximately 1-2% of large joint dislocations. Axial, high-energy forces acting through the STJ due to motor vehicle accidents or falls from height account for 50-80% of these injuries. STJ dislocations can displace medially (80%), laterally (17%), posteriorly (2.5%), and anteriorly (1%). Given the infrequency of these injuries, the precarious blood supply to parts of the talus and numerous ligamentous attachments and articular surfaces, proper techniques along with the anatomical nuances of the STJ should be understood when attempting to reduce such dislocations.

We discuss the case of a forty-year-old male who presented to the Emergency Department (ED) after sustaining an ankle injury at a trampoline park. X-rays were obtained and revealed a medial STJ dislocation. An attempt was made by the ED physician to reduce the dislocation. Post-reduction x-rays showed a malreduced STJ dislocation and an iatrogenic ankle joint dislocation, sustained during the attempted STJ reduction. The decision was made at this time to take the patient to the OR for closed reduction under anesthesia versus open reduction. Post-reduction x-rays showed a malreduced STJ dislocation and an iatrogenic ankle joint dislocation, sustained during the attempted STJ reduction. The decision was made at this time to take the patient to the OR for closed reduction under anesthesia versus open reduction of the STJ and ankle joint.

PRE/POST REDUCTION

STJ dislocations are rare injuries accounting for approximately 1-2% of all dislocations. A review of the literature did not reveal any cases of an iatrogenic ankle joint dislocation following attempted reduction. These fragments were manipulated out of the way. The talus was then placed into an anatomic position in relation to the navicular. The foot was everted and both the tibiocalcaneal joint and subtalar joint reduced, evidenced clinically and via intraoperative fluoroscopy.

Post-operatively, the patient was non-weight bearing in a posterior mold. A CT was obtained and revealed an intraarticular, comminuted fracture through the posterosmedial talus body. Approximately 2 weeks post-op, the patient was taken back to the OR for open reduction with internal fixation of the fractured talus. Through a posterior-medial incision, the talus was exposed and 4 headless compression screws were placed across the 2 main fracture lines, 2 screws from medial to lateral and 2 from posterior to anterior. After 2 weeks, non-weight bearing in a posterior mold, the patient was placed into a short leg cast and kept non-weight bearing for an additional 8 weeks. At 10 weeks post-op, he was taken out of the short leg cast, placed into a CAM boot, and permitted to bear partial weight. At 12 weeks post-op, he was allowed to begin full weight bearing in a CAM boot. At post-op week 13, he began formal physical therapy for 6 weeks. He was allowed to return to work at 3 months post-op with restrictions of light duty. At 8 months he was allowed to return to work with no restrictions. At his final visit 14 months post-op x-rays taken in office showed complete union of fracture sites and the patient was back to work full time as a manual laborer with minimal pain.

REFERENCES