BILATERAL NAVICULAR STRESS FRACTURES

JORDYN M. WEHSENER

Professional Development in Athletic Training; Baylor University; Waco, TX

Category: Undergraduate

Advisor / Mentor: Gallucci, Andrew (Andrew_Gallucci@baylor.edu)

ABSTRACT

Background A collegiate women’s basketball player had bilateral navicular stress fractures that did not respond to several non-surgical and surgical treatments. Differential Diagnosis Tibia fracture, foot contusion, bone bruise, metatarsal stress fracture, metatarsalgia, lisfranc injury. Treatment After conservative treatment and an open reduction internal fixation (ORIF) surgical intervention failed, the doctors had to develop a unique treatment approach. First, the athlete was prescribed FORTEO®, an osteoporosis treatment medication, which ended up failing in the end. The next step was another surgery. For the left foot, an ORIF was modified to include the placement of a plate, six screws and a bone graft. For the right foot, the surgeon inserted a percutaneous screw. Then, the athlete was placed in a walking boot for six weeks. Uniqueness Navicular stress fractures comprise up to 35% of all stress fractures. Navicular stress fractures are associated with poor outcomes that can require a patient to discontinue participation. The medical staff developed a unique surgical technique to repair the fractures and prescribed FORTEO® which is not typically prescribed to college athletes. Conclusion Navicular stress fractures are difficult injuries to manage. Treating these injuries can call for the development of new surgical techniques. Athletic trainers need to be aware of different surgical techniques and medications to improve the outcomes of treating this injury.