A 13 year old, female gymnast exhibited extreme pain in her left ankle after landing a backflip into a foam pit. The athlete was unable to bear weight and there was obvious deformity and immediate swelling. This warranted splinting and immediate referral for emergency care by the athletic trainer. X-ray and a CT scan indicated a dislocation of the distal tibial growth plate which was corrected with a closed reduction, as well as a Salter Harris II fracture of the distal tibial growth plate and a spiral fracture of the fibula which were casted to allow for healing. A rehabilitation and gradual return to play program were developed to return the athlete to competitive gymnastics. She returned to full participation 12 weeks post-injury. This is a unique case because it involved a combination of three injuries and it is rare to have a dislocation of the growth plate. There is currently no rehabilitation protocol for treating the combination of injuries or discussion of post-injury return to play outcomes. Recognition, management, and rehabilitation are all pertinent when working with growth plate injuries.

Incidence rates of growth plate fractures increase during pubescence. Due to the underdeveloped bones of youth athletes, fractures are more common than ligamentous damage and there is currently no rehabilitation protocol for treating the combination of injuries or discussion of post-injury return to play outcomes. Recognition, management, and rehabilitation are all pertinent when working with growth plate injuries.

Improving Clinical Outcomes

• Gained knowledge of immediate care and rehabilitation which can result in a positive outcome.
• It is important to closely examine the healing process and rehabilitation conducted to promote the best outcome for the patient.
• Due to the underdeveloped bones of youth athletes, fractures are more common than ligamentous damage and therefore, athletic trainers need to be aware of the populations they are working with.
• Growth plate fractures are commonly seen in athletes who participate in football, basketball, or gymnastics.
• Incidence rates of growth plate fractures increase during pubescence.

References