ACUTE EXERTIONAL ANTERIOR COMPARTMENT SYNDROME IN A COLLEGIATE FOOTBALL PLAYER: A CASE REPORT
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Background: A 19-year-old Division I AA collegiate defensive back, with no previous history of lower leg pathology, presented with left lateral lower leg pain after a 300-yard shuttle test. A certified Athletic Trainer evaluated the athlete immediately after the shuttle test and noted increased tension in the lower leg with no neurological or motor deficits in the lower leg or foot. The dorsal pedal pulse was normal. Although the athlete iced his lower leg and remained non-weight bearing on crutches, the pain increased progressively over the next 12 hours. The athlete began to complain of numbness in the anterior lower leg and dorsum of his foot to the athletic trainer. A decrease in strength with dorsiflexion and great toe extension was also noted. The team physician evaluated the athlete the following morning. By this time, the athlete was unable to dorsiflex his ankle and extend his great toe. Anterior and lateral compartment pressures were assessed and found to be abnormally high. The athlete was sent to the hospital where emergency anterior and lateral fasciotomies were performed. Differential Diagnosis: Medial tibial stress syndrome, peroneal tendonitis, stress fracture, periostitis and chronic compartment syndrome. Treatment: Initially the lower leg was packed in ice. The athlete underwent an anterior compartment release 24 hours after the athlete’s initial complaint of pain. The athlete undertook a rehabilitation program for his lower leg post surgery. The athlete missed the fall season but was cleared to participate in spring drills. Uniqueness: It is rare to have acute anterior compartment syndrome with no sustained trauma. This case of compartment syndrome was neither chronic nor true acute compartment syndrome. The athlete’s exertional compartment syndrome progressed very rapidly to the acute condition. Conclusion: It is important for clinicians to realize that exertional compartment syndrome may progress very quickly to an acute condition without the presence of trauma. It can lead to an emergency situation when not monitored appropriately. Key words: Exertional compartment syndrome, chronic compartment syndrome, fasciotomy, and lower leg compartment testing