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Triceps tendon avulsion: A case study to often missed and exceedingly rare diagnosis

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Triceps tendon rupture is a rare injury that accounts for fewer than 1% of all upper-extremity tendon injuries. Although ruptures at the musculotendinous junction have been observed, the osseo-tendinous insertion in the olecranon is the most prevalent site. Trauma is the most common cause of triceps tendon rupture; however, several systemic concomitant disorders such as Marfan syndrome, hyperparathyroidism, osteogenesis imperfecta, systemic lupus erythematosus, or individuals on steroids can also result in rupture owing to decreased tensile strength. This injury is most common in middle-aged males, but cases have been reported in people of all ages, including youngsters before epiphyseal fusion and the elderly. Because of their rarity, such injuries are commonly overlooked and should be considered as a differential diagnosis in all patients who report with pain and swelling at the back of the elbow following a traumatic event.

Method: A 31-year-old man arrived with pain and swelling in his left elbow after falling from a height of 2 meters and catching his elbow under his body while bouldering. The left elbow was tender on clinical examination, with minimal swelling at the triceps insertion and no discernible gap, and active flexion and extension of the afflicted elbow were painful. The characteristic flake sign on lateral elbow radiography indicated acute triceps tendon rupture. The location of rupture was exposed through a posterior midline incision, and the flake of bone with the triceps tendon was repaired using the Krakow procedure, which consisted of a 4-strand No.2 Ethibond suture achieving a satisfactory result.

Conclusion & Significance: The summary emphasises the significance and necessity of a comprehensive evaluation because triceps rupture is an uncommon injury and classical clinical signs may not always be present. A strong index of suspicion, physical examination for a palpable gap, and lateral radiographs with a "flake" fracture will help in diagnosis. These injuries are usually overlooked in a typical accident and emergency scenario, and delayed surgical therapy results in long-term functional disability. Hence, a thorough radiological and repeat clinical examination is warranted in doubtful scenarios. Early identification of these injuries and prompt surgical intervention are the cornerstones of a successful functional outcome and good rehabilitation.

Recent Publications

1. Sharma, Pulak, et al. "Triceps tendon avulsion: a rare injury." Ethiopian journal of health sciences vol. 24,1 (2014): 97-9.
2. Mirzayan R., Acevedo D.C., Sodl J.F. Operative management of acute triceps tendon ruptures: review of 184 cases. Am J Sports Med. 2018; 46:1451–1458.
3. Tagliafico A., Gandolfo N., Michaud J. Ultrasound demonstration of distal triceps tendon tears. Eur J Radiol. 2012; 81:1207–1210

Biography

Kristo Qylafi graduated with an MBBS from Athens Medical University in 2017. He served as a military physician for 1 year and afterward, he worked for 2 years in the A&E department of numerous hospitals throughout the country's rural areas. He currently works as an SHO in the Orthopaedic department at Guy's and St Thomas' Hospital.

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