

SURGICAL FIXATION OF AN EXTRAARTICULAR CALCANEAL AVULSION FRACTURE IN AN ELDERLY: A CASE REPORT

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Introduction: Calcaneal fractures are the most commonly fractured tarsal bone, 25% of them are extraarticular. They are less widely discussed compared to intraarticular calcaneal fractures in terms of classification, diagnosis, treatment and outcome. Operative treatment in the elderly also remains controversial.

Discussion: A 79-year-old gentleman was admitted after he fell from the motorbike landing on his right heel. He complained of swelling over his right ankle and was unable to bear weight. Upon examination, ecchymoses was present around the right ankle with tenderness upon medial and lateral compression of the hindfoot. Range of movement of his right ankle is limited due to pain and swelling. Thompson test over the right lower limb was positive. Plain radiograph showed fracture over the posterior tuberosity of the right calcaneum. Bohler's angle and critical angle of Gissane were 18° and 122° respectively. A right foot CT scan confirmed the diagnosis to be a comminuted posterior tuberosity tenoachilles avulsion fracture with extension to the body. Forepart of the calcaneum and all intraarticular facet joints were intact. Screw fixation of the right calcaneum was done on day 5 post trauma after swelling had subsided. Post-operative x-rays noted a vertical split over the avulsion bony fragment following the line of the screw fixation. A revision screw fixation operation was performed 2 days later, strengthened with Achilles tendon anchor sutures. Post-operatively, he recovered well with no major complications. He was immobilized with a bootcast for 6 weeks and was able to regain full ankle range of motion and full weight bearing at 3 months.

Conclusion: Calcaneal tuberosity avulsion fractures are extraarticular fractures which are rare but could still lead to devastating outcomes if poorly managed. Surgical fixation provides good functional outcome and lower risk of chronic foot pain, including for the elderly if they are active and fit for operation.