

Talar Fracture Outcomes: A Multicentre Retrospective Review

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Abstract

Background: Talar neck and body fractures are uncommon injuries that can be challenging to manage. Adverse outcomes such as post-traumatic arthritis and avascular necrosis (AVN) are well reported. Historic rates for AVN are especially high in displaced talar neck fractures. Modern reduction and fixation methods differ from the management described in the historic series and the authors have noted a lower incidence of adverse outcomes.

Methods: A retrospective analysis of prospectively collected trauma databases was performed across three major trauma centres in London, Brighton and Oxford. Patients with talar neck and/or body fractures sustained between August 2015-August 2019 were identified. Fixation method and outcomes were reviewed from notes and imaging. Isolated lateral process and talar head fractures were excluded as were osteochondral injuries and dislocations with/without minor fragmentation.

Results: After exclusions, 85 patients with talar neck/body fractures were identified. 60 patients were managed with internal fixation (screws/plates and single/dual incisions), with another 15 treated via other surgical means. Mean follow up was 12.4 months. The overall AVN rate was 5.9% (5 patients), overall post-traumatic arthritis rate was 18.8% (16 patients), deep infection rate 1.2% (1 patient), non-union rate 4.7% (4 patients). Removal of metalwork rate was 9.4% (8 patients).

Conclusion: We report a large multicentre series of talar neck and body fractures, with complication rates, especially that of AVN, lower than those in the literature. This may be due to the higher frequency of performing open reduction with direct visualisation of the fractures, and by surgery being performed by specialist consultants.

Word Count: 250