The importance of medial wall stabilization in sinus-tarsi approach to treat Sanders type II and III calcaneus fractures
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Category: Trauma

Keywords: Intra-articular calcaneal fractures, displaced, internal fixation, minimally invasive, percutaneous

Introduction/Purpose: The aim of this study was to assess the clinical outcomes of medial wall stabilization in sinus-tarsi approach to treat Sanders type II and III calcaneus fractures.

Methods: In this retrospective study, a total of 38 patients (32 men and 6 women) with 38 displaced intra-articular calcaneal fractures were included. A modified sinus tarsi approach was used to reduce and stabilize the posterior facet using rafting technique with mini-fragment locking plate and multiple sagittal screws were added percutaneously to stabilize the calcaneal body and to control rotation. Preoperative and postoperative Böhler’s and Gissane angle were compared, American Orthopaedic Foot and Ankle Society (AOFAS) Ankle-Hindfoot scores and SF-36 scores were used to evaluate the final outcomes, and the complications were also recorded.

Results: The mean duration of follow-up was 17.4 months. The mean preoperative Böhler’s angle (13.4 ± 3.4°), Gissane angle (88.1 ± 7.6°) were significantly increased (P < 0.05) at final follow-up (25.5 ± 5.6°, 116.2 ± 7.5°, respectively). Complications included 9 cases of moderate subtalar joint stiffness. There were 2 cases with wound edge necrosis, but there was no superficial or deep infection, or nerve injury was observed in these patients.

Conclusion: The application of minimally invasive rafting technique with medial wall stabilization is an effective option for displaced intra-articular calcaneal fractures.