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# Functional Outcomes after Fracture-Dislocation of the Ankles

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**Introduction/Purpose:** Fracture-dislocation of the ankle represents a substantial injury to the bony and soft tissue structures of the ankle. Although there is a wealth of reported outcome after operative treatment of ankle fractures, there has been a limited focus on functional outcome of surgically treated ankle fracture-dislocations. The purpose of this study is to compare short-term functional outcome after open reduction and internal fixation (ORIF) in ankle fractures with and without dislocation.

**Methods:** A retrospective chart review of ankle fractures surgically treated by ORIF over a three year period was performed. All ankle fracture patients 18 years or older with a minimum of 12 months follow-up were included. Demographic data, type of injury (bimalleolar, trimalleolar, etc.), operative time, complications, and functional outcomes were recorded. Functional outcome was determined by Foot and Ankle Outcome Score (FAOS) at the latest follow up visit. Comparison of demographic variables and the subcategories of FAOS including symptoms, pain, activities of daily living (ADL), sport activity and quality of life (QOL) were performed in ankle fractures with dislocation and without dislocation. A total of 62 patients were eligible for analysis, 38 (61.3%) were female. Twenty patients (32.3%) were fracture-dislocations and 42 (67.7%) had no dislocation. Mean age of patients was 48.44 ± 17.89 years (range, 19-85 years). Mean follow-up time is 39.79 ± 13.53 months (range, 12-76 months).

**Results:** The fracture-dislocation cohort demonstrated worse FAOS than the nondislocation cohort (symptoms 73 vs 79, pain 75 vs 85, ADL 80 vs 88, Sport 63 vs 76 and QOL 54 vs 60, respectively), although none of these differences were statistically significant. Patients with ankle fracture-dislocation had more bony injury (i.e. more bimalleolar and trimalleolar injuries) (P = .007) and had a higher rate of subsequent hardware removal (11.9% vs 35%, P = .031) There was no statistically significant difference in patient demographics or the rate of complications.

**Conclusion:** Fracture-dislocations of the ankle presented with more bimalleolar and trimalleolar fractures, although there was no statistically significant difference in terms of functional outcome. Subsequent surgery for hardware removal was higher in the dislocation cohort. Although our data showed no difference in outcome, there was a trend towards worse outcomes in the dislocation cohort that a larger study may be able to discern.

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