Outcomes of Lisfranc Injuries Treated with Joint Preserving Fixation

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Introduction/Purpose: Open reduction and internal fixation with transarticular screws to stabilize Lisfranc injuries may increase the risk of arthritis or affect outcomes. Extra-articular or bridge plating to stabilize these injuries avoids this articular damage. This study analyzes the functional outcomes and complications in patients who underwent this type of joint preserving fixation for Lisfranc injuries.

Methods: A retrospective review of all patients treated for a Lisfranc injury at a level 1 trauma center from July 2008 to October 2015 was conducted. Patients over 18 years of age who were not incarcerated and did not have any concomitant procedures in the lower extremities were included. Patient electronic medical records were reviewed. Outcomes were analyzed with AOFAS scores.

Results: There were 16 patients included in the study with an average follow up time of 57 months (15 - 102 months). Average AOFAS score was 79 (SD 16) and time to return to regular activities was 35 weeks (SD 25 weeks). Seven patients (44%) had their hardware removed during the follow up period. There was 1 complication which comprised of a screw backing out and needing to be removed.

Conclusion: In the present case series, joint preserving fixation for Lisfranc injuries offered similar AOFAS scores as those reported for ORIF with transarticular screws, but with a decreased rate of hardware removal and need for mid-foot fusion.

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