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Short-term results of Lisfranc injuries treated with the suture button technique

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ABSTRACT

Introduction: Interosseous suture buttons can be used as an alternative technique for fixation of Lisfranc lesions. Theoretically, it may overcome the disadvantages of the rigid construct provided by plates and screws. The aim of the present study was to provide short-term results of Lisfranc injuries treated with the suture button technique.

Methods: Sixteen consecutive patients with Lisfranc injuries requiring an operation were treated using the Mini Tight Rope® (Arthrex, Naples, FL). Medical records and radiographic images were analyzed with respect to functional outcomes, complications, need for reoperation and radiographic outcomes. The mean follow-up was 32 months. Functional outcomes were measured by the AOFAS midfoot score and the Visual Analogue Scale (VAS) at the latest follow-up.

Results: At a mean follow-up of 32 months, the average AOFAS score was 95.8 and the mean VAS was 0.6. All patients but one were able to return to their previous activities. A total of 9 complications were observed in 6 patients, with discomfort at the button insertion site being the most common (4). Other complications included evidence of radiographic arthritis (3), loss of reduction (1) and extensor hallucis longus tendinopathy (1). Only 1 patient required a reoperation for removal of the suture button.

Conclusion: Use of the suture button for fixation of Lisfranc injuries showed excellent results in the short-term. However, arthritis and/or loss of reduction were noted in 3 patients during follow-up, which could have been caused by the severity of the primary injury itself or by a lack of stability provided by the construct. Further studies are required to evaluate whether the suture button technique provides enough fixation to maintain reduction and prevent the development of arthritis in the long-term.

Keywords: Lisfranc injury; Tarso-metatarsal; Nonrigid fixation.

