

ORTHOPAEDICS, ARTHROPLASTY AND ARTHROSCOPY

June 29, 2023 | Webinar

Received date: 31.01.2023 | Accepted date: 02.02.2023 | Published date: 07.07.2023

Dorsal bridge plate fixation for lisfranc fracture dislocations

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Background: Traditionally, the benchmark of treatment of Lisfranc fracture dislocations has been open reduction and internal fixation (ORIF) with transarticular screws. Recently, however, there has been a trend towards the use of dorsal bridge plating in an attempt to avoid additional damage to the joint from screw penetration. Objectives: To analyse the functional and radiological outcomes of bridge plating.

Study Design & Methods: We retrospectively evaluated the clinical outcomes of patients with acute Lisfranc joint injury who had been treated by ORIF with a dorsal bridge plate from 2014 to 2021 at our Department of Traumatology and Orthopaedics. Patients with a follow up of less than 12 months were excluded. The outcomes were evaluated using the midfoot scores of American Orthopedic Foot and Ankle Society (AOFAS) at the last follow up. The anatomical reduction (alignment, length, and Lisfranc interval diastasis) was assessed on postoperative images using the Wilppula classification of good, fair, or poor.

Results: Eighteen patients, 15 men and 3 women, aged from 20 to 71 years (average 34 years) and a mean follow up of 30 months were analysed. They all underwent plate extraction between 4 and 5 months (average 4.2). The mean AOFAS score was 92. We achieved good or anatomical reduction in all patients. One patient (5.6%) had a screw pull out and 1 patient (5.6%) had a Sudeck syndrome.

Conclusions: While debate continues about the best method of fixation, there is, however, a consensus that the anatomical, stable reduction of a Lisfranc injury is a prerequisite for a good outcome. ORIF with a bridge plate can lead to rigid stability, precise reduction and good clinical outcomes.

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Biography

Jose Machado is a resident of Traumatology and Orthopaedics with a vast interest in foot and ankle pathology.