CASE REPORT

28. One Step Forward, Two Steps Back: Functional Decline following Lisfranc Fracture-Dislocation

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https://www.youtube.com/watch?v=hJIcIJ1w8oM&list=PLhqNq3xJClbafO0Y5bvBcgMmXpgzJxd44&index=5&t=16509s

Background: What once was managed through foot amputations has now evolved from a surgical sentence to a joint-sparing breakthrough in modern orthopaedics. Though rare, Lisfranc injuries pose devastating consequences as they are associated with poor functional outcomes and high rates of disability. Lisfranc injuries continue to test clinicians with its subtlety and complex biomechanics.

The Case 24-year-old male sustained a Lisfranc fracture-dislocation during Brazilian jiu-jitsu training when his left foot was held in plantarflexion and abruptly subjected to axial-load. Initial weight-bearing radiographs demonstrated classic widening between the 1st and 2nd metatarsal bases ("fleck sign"), lateral displacement of the 2nd metatarsal, and subluxation of the tarsometatarsal joints, confirming ligamentous disruption. CT scans further detailed the fracture-dislocation. The surgical team debated between primary arthrodesis versus open reduction and internal fixation (ORIF). Given the patient's age and fitness, he underwent urgent closed reduction followed by ORIF using multiple cannulated screws and a dorsal bridge plate. A follow-up X-ray showed improved alignment, but the patient reported ongoing pain despite 12 months of physiotherapy. Everyday activities like walking and standing for extended periods became difficult, impacting his mental health. He later opted for a second surgery to remove the hardware. Though this offered partial relief, he continues to suffer from stiffness and pain.

Conclusion: Even with timely surgical repair, Lisfranc injuries are physically taxing to recover from, often leading to life-altering functional limitations as they are associated with arch collapse and posttraumatic arthritis. Improving access to specialist care is essential to promote midfoot stability and prevent long-term disability.

Figure 1. Left Foot X-ray (Oblique and Dorsoplantar Views)

Legend: Preoperative Radiographs Demonstrating Lisfranc Fracture-Dislocation Anteroposterior and oblique radiographic views of the left foot demonstrating a Lisfranc injury, characterized by displacement between the first and second metatarsal bases and malalignment of the tarsometatarsal joints. Note the diastasis and instability at the midfoot region, with the cursor pointing at the "fleck sign" – consistent with a fracture-dislocation pattern.

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