

Stepping into Recovery: Lisfranc Injury Treated with Tightrope Fixation – A Case Report

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INTRODUCTION:

The Lisfranc injury is one of the rare and severe injuries to the foot. The mechanism of injury usually involved the indirect rotational forces and axial load through the hyper-plantarflexed forefoot. Various complications were seen in the neglected cases including malunion and arthritis. We presented a case report of a divergent type Lisfranc injury treated with tightrope fixation in our centre.

REPORT:

37-year-old man, alleged motor-vehicle accident. Post-trauma, he had pain and swelling of the left foot and could not bear weight. The left foot radiograph show a divergent type of Lisfranc injury. The severity of the injury required surgery for restoration of the foot arch. This patient underwent surgery after two weeks of trauma once the swelling subsided. An open reduction ; tight rope fixation of the Lisfranc joint with screw fixation of the 1st and 2nd tarsometatarsal joints (TMJ) was performed. After fixing the intercuneiform instability, the 1st and 2nd TMJ were reduced and stabilized with the headless screws. Lastly, tight rope fixation of the Lisfranc joint following the anatomical direction of the native Lisfranc ligament was done. Post-operative three months, the patient can walk unaided and return to work.



Fig. 1: Left foot post-trauma showing a swollen foot



Fig. 2: PA and oblique pre-operative radiographs of the left foot showed a divergent type of Lisfranc injury .

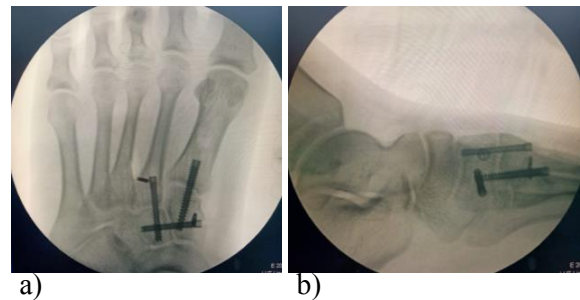


Fig. 3: Left foot post-operative radiographs; (a) PA view showed the tightrope fixation at the native Lisfranc ligament; (b) lateral view showed reduced 1st and 2nd TMJ

CONCLUSION:

In all types of Lisfranc injuries, the aim of foot arch restoration and stabilization became the priority. Various options for the implant were available to treat such injuries. Recently, the tight rope fixation became more popular and practical, allowing some micromotion, hence restoring the same function as the previous native Lisfranc ligament.

REFERENCES:

1. Hiroyuki F. et all. Lisfranc Injury. N Engl J Med 2022; 386: e4
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