ORIGINAL RESEARCH PAPER

Orthopaedics

CASE REPORT LISFRANC'S FRACTURE DISLOCATION

KEY WORDS:

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INTRODUCTION

The tarsometatarsal joint injuries are also named as Lisfranc joint injuries after Jacques Lisfranc, a surgeon in Napoleon's army described an amputation through the joint for gangrenous injuries of the forefoot [1]. Fracture dislocations of the Lisfranc (tarsometatarsal) joints of foot are uncommon but serious injuries, with high potential for chronic disability. These injuries can easily be missed in the emergency department as radiographs may show only subtle incongruity of the joint [2]

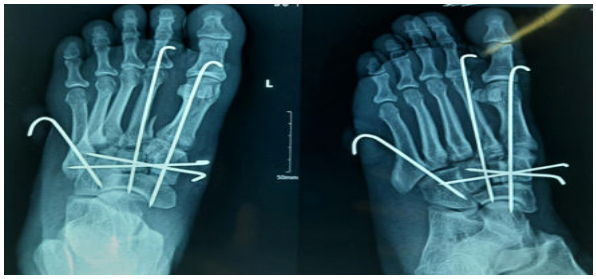
Although the current trend for management of these fractures is towards open reduction and screw/Kirschner wire fixation (3,4)Closed reduction and percutaneous Kirschner wire fixation has been reported in literature with acceptable outcomes (5,6)

The purpose of this study was to evaluate the functional outcome of patient with Lisfranc joint injuries treated with fluoroscopically guided closed reduction and internal fixation with Kirschner wires in secondary care centre.

Case Report

A 50 year old male patient presented to Bapuji Hospital Emergency Room with alleged history of heavy object fall on his left foot . Following incident patient complains of pain and wound in the left foot . On Examination,there was a Laceration of 5*2*1cm at dorsum (anteromedial aspect l) of the foot with diffuse Swelling over the dorsum of the foot ,Tenderness present over proximal end of 1st ,2nd ,3rd,4th Metatarsal, intermediate and medial Cuneiform and Cuboid bones, traumatic left 1,2,3,4,5 tarsometatarsal joint dislocation was diagnosed.Under spinal anaesthesia and percutaneous K wire fixation was done.

Pre surgery xray and



Post surgery xray and scar pictures

DISCUSSION.

Diagnosis and treatment of Lisfranc joint injuries especially Lisfranc joint fracture dislocations, are still problems in trauma care and influence the functional outcome of the entire foot in the mid and long-term follow-up [7]. The factors influencing the results of treatment for Lisfranc injuries include: (1) Initial degree of soft tissue injury. (2) Time from injury to operate. (3) The accuracy of reduction.

We believe that early closed reduction and K-wire fixation considerably improves the functional outcome in these injuries. There is an added advantage that there is no scar related discomfort and cosmetic concern and no second surgery for removal of hardware is required. The disadvantage is that this method needs longer period of immobilization Direct injury -occurs by fall from height or road traffic accidents.

Indirect injuries can be high energy, as in motor vehicle accidents and falls from a height, or caused by low-energy forces, such as those incurred during athletic activity. Most commonly, indirect injuries are associated with a longitudinal force applied to the forefoot, which is then subjected to rotation and compression.(6)

Patients with displaced or unstable Lisfranc joint injuries require surgical treatment in order to achieve anatomic reduction. The diagnosis and treatment of Lisfranc fracture-dislocations should comply with the theory of three-column reconstruction of foot arch, which can achieve the static balance of biomechanics and provide a stable environment for healing of fracture and soft tissue. Reduction and fixation with multi-Kirschner wires is an effective treatment method for Lisfranc fracture dislocations.

CONCLUSION

Closed reduction and percutaneous fixation of Lisfranc joint injuries has the advantages of minimally invasive surgery, decrease the complication rate and allow early rehabilitation compared with the traditional method of open reduction.

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