

## Lisfranc Fracture Dislocation In Paediatric

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### INTRODUCTION:

Foot fractures account for 12% of all pediatric fractures. Injury involved the Lisfranc joint is uncommon and only accounts for than 0.2% of all fractures in adult. It is rarely occur in children as the large part of foot is make up from cartilaginous component , makes it relatively resistant to fracture. Diagnosis of lisfranc injury in Paediatric age group can be difficult due to the complexity of plain radiograph of the foot, particular of the immature foot , make the Lisfranc injury to be one of the commonly missed Injury (1).

### CASE REPORT:

We report a 7 year-old boy who complain of left foot pain and bleeding after his foot trap into a moving motorcycle wheel. He had a laceration wound over dorsal of left foot ,circulation of all toes was good. X ray of the foot showed salter harris type 1 fracture of base of first metatarsal with dislocation of first tarsometatarsal joint (Myerson Type B1) and second metatarso-phalangeal joint (Figure 1). Irrigation of foot and shin was done with copious of saline. Reduction of lisfranc joint was done ( Figure 2). Backslab was applied and patient was prepare for proper debridement , K-wire of first tarso-metatarsal joint, base of first metatarsal and second metatarso-phalangeal joint (Figure2). Intra-operatively, there is Salter Harris Type 1 fracture through growth plate of base of first metatarsal and first tarso-metatarsal joint was unstable. During follow up at 3 months post op, wound healed, no tenderness over Lisfranc joint, and the joint was not mobile.



Figure 1

Figure 2

### DISCUSSIONS:

The most common paediatric equivalent to the adult Lisfranc is a fracture of the first proximal metatarsal. This can be associated with ligamentous injury of the tarsometatarsal junction and extend to involve the second

metatarsal. In our patient, fracture through the physis of first metatarsal and dislocation of tarso-metatarsal joint , Myerson Type B1(2) . This rare injury which involved bony and ligamentous component. In developing bone, injury usually will fracture the bone rather than ligament, because of the physis is weaker than the ligament. Children with Lisfranc injuries can present from mild midfoot discomfort to severe excruciating pain. It should therefore be suspected in any child with midfoot pain on the dorsal or the plantar aspect of the foot during weight bearing. Useful clinical signs including plantar ecchymosis, midfoot instability and significant soft-tissue injury even in the presence of a normal radiograph .All suspected injuries require careful workup as significant injuries can reduce spontaneously and therefore hide the initial deformity(3). The goal of treatment is a stable painless plantigrade foot. Current literature emphasized on the important of anatomical reduction and maintainance of the reduction. Treatment option in adult for unstable Lisfranc injury including fixation or fusion, by screw or plating. However , in developing foot, is it unwise to fused the foot, and fixation with screw might damage and growth plate. Smooth small diameter K wire seems to be the option of choice in paediatric age group to achieve stability and prevent screw-associated complication

### CONCLUSION:

Early recognition of this devastating injury and aggressive treatment is important to prevent long term complication. Undiagnosed Lisfranc Injury predispose the patient to chronic foot pain, deformity and disability

### REFERENCES:

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