

Simultaneous Metatarsal Bone Fracture with Ankle Ligament Injury: A Point to Ponder

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INTRODUCTION:

Injuries to ankle ligaments and metatarsal fractures can occur simultaneously, especially when the injury involves plantar flexion and inversion of the foot¹. Dealing with such combined injuries can be challenging and necessitates a comprehensive assessment and suitable treatment approach. This case report presents the diagnosis and management of a metatarsal fracture affecting multiple bones in conjunction with an ankle ligament injury.

CASE REPORT:

A 45 years old lady reported with a history of pain and instability in her left ankle joint for the last seven months. About fifteen months before her current presentation, she suffered a fracture in her left third to fifth metatarsal bones due to a fall from stairs with her foot in a plantarflexed and inverted position. She was allowed to bear weight on the leg three months after the percutaneous Kirshner wiring was removed, but she continued to experience persistent pain and instability despite undergoing adequate rehabilitation and physiotherapy.

On further evaluation of her left lower limb, tenderness and swelling were noted over the lateral aspect of the left ankle, and an anterior drawer test on the left ankle joint was positive. Radiograph of her left foot revealed malunion of the left fifth metatarsal (Figure 1), while Magnetic Resonance Imaging (MRI) of her left ankle joint indicated a complete tear of the anterior talofibular ligament (ATFL). Due to the malunion of the left fifth metatarsal bone and the complete tear of the left ATFL, a corrective osteotomy and plating of the left fifth metatarsal bone, as well as a Brostrom-Gould procedure for the left ATFL injury, were performed (Figure 2).



Figure 1: Pre operative x ray



Figure 2: Post operative x ray

CONCLUSION:

It is crucial to have high suspicion index of ATFL injury in a patient presented with multiple metatarsal bone fracture. Incorrect diagnosis and management of ankle sprains and other injuries that present as lateral ankle pain, can lead to chronic pain and degenerative changes.

REFERENCES:

1. Cao H, Li N, Wang G, He J. Therapy strategies of fifth metatarsal base fracture with lateral collateral ligament injury. *J Orthop Surg Res.* 2022 Dec 1;17(1).