

Midfoot Mishap: Comminuted Tarsal Navicular Associated With Undisplaced Cuboid Fracture.

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INTRODUCTION

Midfoot fractures are rare and accounts for approximately 5% of foot injuries¹, due to its unique bone configuration and placement in the midfoot. Injury to either lateral or medial column of midfoot may lead to disruption of the structural integrity of the foot.

REPORT:

We present a case of a 23 years old lorry driver skidded unexpectedly and crashed into a drain. He sustained a displaced navicular fracture and compression of the cuboid associated with bimalleolar fracture. Based on the injury we postulate that the mechanism involved forceful adduction of the ankle together with axial loading foot in plantarflexion which compressed the navicular.

This is navicular Sangeorzan Type III fracture and the cuboid fracture was undisplaced and lateral column length was maintained. Thus, we decided to fix the navicular as it was unstable and subluxated, the comminution of navicular might lead to further disruption of both column length if not fixed. This fracture was fixed using a Navicular locking plate-9 holes (Synthes). To facilitate fracture reduction, we utilized a monolateral fixator to distract the joint whereby two Schanz pin were inserted into the base of 1st MTB and neck of talus to act as distraction tool. A reduction clamp was then used prior to placement of the locking plate.

The patient recovered well, and the Olerud-Molander Ankle Score was 85 at 6 months post operative. The patient was able to go back to work and resume normal daily activities.



Figure 1: Initial radiological investigation.



Figure 2: Placement of navicular plating.

CONCLUSION:

Midfoot fractures are often intrinsically unstable and require surgical intervention. Our goal of fixation is to obtain articular reduction of navicular and restore the medial column length. The use of an external fixator to distract the joint and reduce the navicular fracture was invaluable.

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