

## A Case Report : Early Experience in Treating Comminuted Navicular fracture with Low Profile Angular Stability Locking Plate

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### INTRODUCTION:

Fracture of the navicular are uncommon injuries. Anatomically, the navicular is the keystone of the medial longitudinal arch, and a shortened medial column may produce hindfoot varus and forefoot abduction with painful foot. Therefore, it is desirable to maintain the length of the medial column. Effort should be made to restore articular alignment.

### CASE REPORT:

We describe a case of a 30-year-old male with alleged motor vehicle accident sustained comminuted fracture of the navicular body which confirmed by CT-scan (Figure1). Open reduction and low-profile angular stability locking plate done. Dorsal incision between the extensor hallucis longus and tibialis anterior made. Dissection is performed down onto dorsal side of the navicular and the fragments are identified. The capsule of talonavicular joint was opened. In order to achieve a good reduction and maintaining the medial column length, two shantz pin were used and each inserted at the neck of talus and another at medial cuneiform. The bone fragments were reduced as anatomical as possible and were hold with K-wire. Following confirmation of the proper hardware placement under fluoroscopy, multiple locking screws are placed with care being taken to avoid Talonavicular or naviculocuneiform joints. (Figure 2). The postoperative course consists of splint immobilization with progressive weight bearing initiated after 8 to 12 weeks. Union of fracture achieved with no pain over the fracture site at 6<sup>th</sup> months and patient returns to full functional status without complication.



Figure 1



Figure 2

### CONCLUSION:

The treatment of navicular body fractures is controversial and burdened by a high incidence of complications. An accurate preoperative planning, a meticulous surgical technique aimed at restoring articular and bony anatomy, and the use of low-profile angular-stability plates can lead to optimal clinical and functional results, minimizing the risk of tissue suffering and the complications.

### REFERENCES:

Citation: Caff G, Coppolino M, Prete DF (2016) Isolated Comminuted Tarsal Navicular Fracture: A Case Report. J Clin Case Rep