TEMPORARY BRIDGE PLATING OF MEDIAL COLUMN IN MIDFOOT INJURY

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Introduction: The incidence of midfoot fracture and dislocation are rare thanks to highly constrained configuration of the midfoot bones, secured by extensive ligaments. The midfoot consists of five small bones which are divided into three columns. Whereas the cuboid is crucial for the integrity of the lateral column, the tarsal navicular is the keystone for the medial column. Treatment principles include maintenance of medial column length and alignment as well as a stable fixation. We report a temporary bridge plating of the medial column and screw fixation of the left navicular to provide temporary internal stabilization until bony healing occurs.

Discussion: A 43-year-old lady presented with a crush injury of the left foot following a road traffic accident. Physical examination revealed diffuse swelling and marked tenderness of the left midfoot. No signs and symptoms of compartment syndrome was present and neurovascular status of the left foot was intact. CT of the left foot showed comminuted navicular body fracture with disruption of talonavicular joint, intermediate and lateral cuneiform comminuted fracture. After soft tissue swelling subsided, open reduction and internal fixation was done on the 18th day post trauma. Bridging plate of medial column using 2.4 mm condylar locking plate combined with interfragmentary screw fixation of navicular bone was performed. Post-operative management included Aircast brace for 3 months followed by partial weight bearing. The injury of her midfoot healed uneventfully and early implant removal at 6 months post-operative was performed. At 18 months follow up the patient was well albeit complaint of pain especially on long distance walk.

Conclusion: Midfoot injuries are relatively uncommon and particularly likely to cause debilitating post-traumatic arthritis. A good initial surgical reduction is an important determinant for improved outcome. Open reduction and temporary bridge plating of medial column seems to be a reliable method of management for such injuries.