

Posteromedial Surgical Approach for Fixation of Haraguchi Type 2B Posterior Malleolar Fracture: Technique Video

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Background

The posteromedial approach to the ankle is not commonly used to fix medial malleolar fractures; however, it is a useful exposure for fractures involving the posteromedial aspect of malleolus of the medial and posterior malleoli. Mobilization and protection of the posteromedial neurovascular bundle is important to safely approach this part of the ankle. The posterolateral aspect of the posterior malleolus also can be accessed for fracture fixation via this surgical approach.

Purpose

This video provides an overview and a case presentation on a posteromedial approach to the posterior malleolus.

Methods

The anatomy of, physical examination of, diagnosis of, and treatment options for a posteromedial approach to the posterior malleolus are reviewed. Surgical indications and considerations are discussed. The case presentation of a 26-year-old man with a displaced medial malleolus fracture with extension into the posteromedial aspect of the posterior malleolus is presented. A CT scan of the ankle shows a Haraguchi type 2B posterior malleolus fracture with a posteromedial and posterolateral fragment. The posteromedial fragment extends into the posterior colliculus of the medial malleolus and has a subchondral impaction fracture. In addition, a 1-cm × 1-cm piece of the articular surface of the posterior malleolus has flipped 90° and lodged itself between the posterolateral fracture fragment. The interval between the flexor hallucis longus and the flexor digitorum longus is developed to expose and reduce the posteromedial and posterolateral fracture fragments. The fracture is fixed with the use of mini-fragment locking plates.

Results

At 3 months postoperatively, clinical outcomes revealed good ankle range of motion and ankle strength, and ankle radiographs demonstrated a concentrically reduced ankle mortise without any evidence of hardware loosening.

Conclusion

The posteromedial approach is a relatively simple and effective approach for fixation of posteromedial fractures of the medial and/or posterior malleolus. This same approach can be used to fix associated lateral posterior malleolar fractures.