Treatment Outcomes of Buttress Plating for Posterior Pilon Fractures
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Introduction/Purpose: The purpose of current study was to retrospectively analyze the clinical outcomes of buttress plate treatment of posterior pilon fractures

Methods: Between January 2005 and December 2009, 16 patients with posterior pilon fractures underwent buttress plate fixation. There were 11 males and 5 females and the mean age was 37.6 years (range, 23 to 62 years). Preoperative radiographs, CT scans and three dimensional reconstructions were used to evaluate the fracture patterns. On the basis of the extension of the fracture lines presented on the CT scans, a posterolateral approach or a combination of both posterolateral and posteromedial approaches were used to reduce and fixate the posterior malleolar fragments. Clinical and radiographic examinations were used for postoperative follow-up. The American Orthopaedic Foot and Ankle Society (AOFAS) ankle-hindfoot score and the Visual Analogue Scale (VAS) were used to evaluate the functional outcomes.

Results: According to the CT scan images, the posterior pilon fractures were classified into 3 types. 14 patients were available for follow-up. The mean time of follow-up was 37.6 months (range, 16 to 52 months). The mean AOFAS score was 86.4 points (range, 70 to 98 points), and the mean VAS score was 1.4 points (range, 0 to 3 points). One patient was found with ankle joint swelling and long term walking discomfort at 2-year follow-up. Other patients received favorable functional outcomes. No hardware failure occurred.

Conclusion: The clinical outcomes of buttress plate treatment of posterior pilon fractures were satisfactory. Buttress plating availed the patients to return to earlier weight-bearing and functional exercises.

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