Corrective-elongation osteotomy without bone graft for old ankle fracture with residual diastasis

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摘要

Abstract

The main principle for treatment of ankle fractures is anatomic reduction until bony union is achieved. Old fractures of the ankle with residual diastasis, however, may cause persistent pain, joint effusion, and range-of-motion limitation, and make eventual ankle arthrodesis inevitable. Restoration of the integrity of the ankle mortise is the determining factor for successful repair of this type of ankle fracture. Old ankle fracture, where malunion has already occurred, is a great challenge for the orthopedic surgeon. Twelve such patients were treated by means of reconstructive corrective-elongation osteotomy without bone graft at the authors' institution from 1997 to 1999. These patients had persistent symptoms and radiographic evidence of a fibula that had healed in a shortened, rotated position, resulting in widening of the ankle mortise. The average time interval between injury and reconstructive operation was 18 months. At follow-up, which averaged 34 months, greatly improved ambulation and level of joint function was noted for all patients, and follow-up x-ray confirmed good ankle mortise geometry. The short-term results for these patients were good, with further follow-up planned to determine efficacy long term. In conclusion, reconstructive corrective-elongation osteotomy is a worthwhile procedure for old ankle fracture with malunion, and it can also postpone degenerative change in the ankle joint