



Fibula-pro-tibia in plating tibial non-unions

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Abstract:

Purpose Plating non-unions of the tibial diaphysis often presents the technical problem of poor purchase of screws due to osteoporosis. To improve the stabilization, insertion of one or more screws through the plate across the tibiofibular space to the fibula (fibula-pro-tibia plating) has been practiced. The aim of this study is to evaluate the effectiveness of the fibula-pro-tibia plating technique in managing difficult diaphyseal tibial non-unions. **Methods** Between 2000 and 2008, 30 patients with diaphyseal non-union of tibia were managed with this technique. The time between injury and index operation ranged between six and 24 months (average, 11 months). Sixteen patients had three surgical procedures before the index operation, ten had two procedures and four patients had one. **Results** The duration of follow-up ranged between ten and 38 months (average 26 months). The mean healing time was 3.5 months. Complications were minimal and included two cases of delayed union which required regrafting after four months and two cases, which had infected nonunion, had reactivation of the infection, which resolved completely after achieving union and removing the plates. There was no negative effect from this fixation technique on the ankle joint motion. **Conclusion** The fibula-pro-tibia plating technique is an effective variation in plating diaphyseal tibial non-unions.

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