



Ankle fusion in Charcot neuroarthropathy by narrow dynamic compression plate through anterior approach

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Abstract:

Abstract Background: Charcot neuroarthropathy (CN) is a progressive, destructive disease of the bones and joints. Charcot ankle and hind foot deformities are challenging to treat, and arthrodesis is the method of choice in correcting these deformities. The aim of this study is to evaluate the results of ankle fusion by narrow DCP through anterior approach in cases with Charcot neuroarthropathy of the ankle. **Methods:** A prospective study of 17 patients (12 men) at an average follow-up time of 41.18 (25-60) months. The indications for surgery were Charcot neuroarthropathy of the ankle with non-braceable deformity and instability with impending ulceration and/or arthritis. The mean age was 57.06 (46 years to 70 years) years, mean body mass index was 36.59 (range 26-47) and mean duration of diabetes mellitus was 20.12 (6 years to 46 years) years. **Results:** The mean operative time was 56.18 (40 to 70) minutes. Bony fusion achieved radiologically in 10 feet (58.8%); with a mean time to union of 6.65 (4 to 10) months; the remaining patients had a stable painless fibrous union. The AOFAS- hind foot scale improved from average preoperative score of 53.3 ± 5.2 to average postoperative score of 77.5 ± 9.2 . Complications include two minor infection, two deep infection and two proud screws. **Conclusions:** Fusion of Charcot ankle with narrow DCP using a single anterior incision is a simple economic method, with less soft tissue disruption, ease of deformity correction, and high rate of patient satisfaction.

Keywords:

Keywords: Charcot ankle, Ankle fusion, Narrow DCP

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