Resolution of Metatarsalgia Following Oblique Osteotomy

Reference:

Scientific Literature Review

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Podiatric Relevance:
Central metatarsalgia presents a distinct surgical challenge to foot and ankle surgeons. This article presents a retrospective review of 32 patients who underwent diaphyseal metatarsal osteotomies to treat central metatarsalgia, with 31 patients demonstrating relief of pain.

Methods:
This is a retrospective review of 32 patients who had 42 sliding diaphyseal metatarsal osteotomies performed by the same surgeon. Twenty-two patients had surgery on the second metatarsal, and 10 patients had surgery on the third metatarsal. Hallux valgus deformities were treated at the same time. Thirteen patients had first metatarsal osteotomies and fourteen patients had metatarsal-tarsal fusions. The remaining five had no hallux valgus deformity. Minimum follow-up was 26 months, with a mean of 64 months and range 26-74 months. The osteotomy was made along the full length of the metatarsal, with the saw blade exiting the lateral cortex at the proximal lateral metadiaphyseal cortex and the distal medial metadiaphyseal cortex. After proper correction was noted, fixation was achieved temporarily with k-wires, which were replaced with 20 gauge wire.

Results:
Thirty-one of 32 patients (97%) had relief of plantar pain. All but one patient were satisfied and would have the procedure again. The mean postoperative AOFAS LIMS score was 82 points, which was a mean improvement of 32 points from pre-operative scores.

Conclusions:
The major limitation of the study according to the authors is its retrospective design. The authors also noted slow healing rates of their diaphyseal osteotomy, with a median time to union of 10 weeks. In conclusion, the authors state that the oblique osteotomy provided relief of plantar pain with low complication rate, high union rate, and consistent results.