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# SUBJECTIVE AND CLINICAL OUTCOMES OF SURGICAL APPROACHES IN CORRECTION OF RHEUMATOID FOREFOOT DEFORMITIES

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## BACKGROUND

Hoffmann-Clayton procedures appears to be promising surgical treatment in severe rheumatoid forefoot deformities. It has been reported that 80% to 90% of foot deformities in adults are due to rheumatoid arthritis. Despite of various surgical approaches, early functional and cosmetic results have been the greatest concern among patients. Thus, optimal surgical approach in correction of severe rheumatoid forefoot deformities is of vital importance for better subjective and clinical results.

## MATERIALS AND METHODS

Clinical study was conducted on 56 painful chronic rheumatoid foot who were treated by arthrodesis of 1st metatarsophalangeal (MTP) and lesser metatarsal head resections. They were divided into 2 groups based on surgical approach in lesser metatarsal head resections. 1<sup>st</sup> group had 25 feet with dorsal approach (Clayton) and 2<sup>nd</sup> group — 31 feet with plantar approach (Hoffmann).

## RESULTS

Subjective and clinical outcomes were evaluated in both groups. The mean post-operative AOFAS scores were 67.82 (range: 32–82) and mean post-operative Foot Function Index (FFI) was 0.51 (range: 0.23 to 0.63) in both groups. Eighty seven percent (48/56 feet) reported early pain relief, improved cosmetic appearance, and improved footwear comfort in Hoffmann group. The mean hallux valgus angles improved from 37° to 15° and the 1<sup>st</sup> intermetatarsal angle from 17° to 8° in both groups. Four feet had non-union of

the 1<sup>st</sup> MTP joint arthrodesis and three among them were re-operated.

## CONCLUSION

Hoffmann and Clayton procedures are optimal methods for excision arthroplasty of lesser metatarsal heads. However, Hoffmann (plantar approach) serves to be more convenient resulting in early recovery, adequate functional stability, rehabilitation and better cosmetic results.

### Keywords:

Hoffmann-clayton, rheumatoid foot, hallux valgus, metatarsalgia, excision arthroplasty, arthrodesis