

1st metatarsal phalangeal joint arthrodesis: A six-year review

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Introduction: Arthrodesis of the first metatarsophalangeal joint (MTPJ) is a well-recognized procedure for treatment of end stage arthritis of the hallux. Several studies have shown that nonunion is a common complication with variable rates in literature. In this study, we undertook a 6-year review to identify the rate of nonunion and other complications of arthrodesis of the first MTPJ in our local hospitals.

Methods: Cases from January 2010–January 2016 were enrolled in the study. Data collection was retrospective. In an effort to minimize losses, only patients that were followed up for at least six months or were discharged from clinic with radiological evidence of fusion were included. Several other data were collected including indications for the procedure and techniques used. As no national data available, we decided to compare our rates with Roukis TS (Nov 2011- JFAS) systematic review on non-union of first MTPJ arthrodesis.

Results: 87 patients were evaluated. One was excluded as did not attend the appointments. 78% were predominantly female patients. Median age was 65 years. Indications included hallux valgus (43%), hallux rigidus (43%) and rheumatoid arthritis (14%). Dorsal plate and screws was by far (94%) the most common technique used. Nonunion rate in our study was 3.5%, while delayed union occurred in 4.6%. 13/86 (15%) patients complained for persistent pain that affected their quality of life postoperatively. 7/86 (8.1%) underwent removal of metalwork. Infection was denoted as a complication in 15 patients (17.4%), the majority of which (73%) were managed conservatively. Median length of follow up was 129 days.

Conclusion: Overall, first MTPJ arthrodesis is a safe and efficient procedure. The incidence of nonunion and hardware removal were below the rates described in Roukis study (5.4% and 8.5%, respectively), however attention needs to be drawn to improve the infection rates.

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