First Metatarsophalangeal Joint Arthrodesis for Hallux Valgus in a Patient with Preaxial Polydactyly and Triphalangeal Hallux

Alex J Bischoff, DPM1; Daniel Logan, DPM, FACFAS2
1: Resident, Grant Medical Center Foot and Ankle Surgery Residency Program
2: Director, FASCO Reconstructive Foot and Ankle Surgery Fellowship

PURPOSE
We present a unique case report of a patient with a history of preaxial polydactyly with severe hallux abducto-valgus and triphalangeal hallux treated primarily with first metatarsophalangeal joint (MPJ) arthrodesis.

Case Study
A 64-year-old male presented for evaluation of pain, stiffness, and occasional swelling to the right first MPJ. Conservative care measures including corticosteroid injections and NSAIDS had proven ineffective as a long-term solution. History is significant for pre-axial polydactyly of the right foot which was previously treated with pre-axial digit amputation. Additional history of gout to the right first MPJ. On physical exam the patient did have significant hallux abducto-valgus deformity with a prominent medial eminence. The hallux appeared elongated in contrast to the contralateral foot. Dorsiflexion and plantarflexion of the MPJ was within normal limits and track bound. Radiographs taken at initial presentation confirmed three diagnoses:

1. Hallux abducto-valgus
2. Hypertrophic medial eminence with cartilaginous cap
3. Triphalangeal hallux

Rationale for first MPJ arthrodesis included the severity of the hallux valgus deformity, history of gout, and concern for recurrence of hallux valgus with such concomitant conditions as pre-axial polydactyly and triphalangeal hallux. Complications such as hallux extensus, hammering and arthroisis of the hallux at the interphalangeal joint were discussed.

Radiographic Imaging

Post Operative Course
The patient was non-weightbearing in a post-operative shoe for two weeks followed by gradual increase in weight bearing status. Eight-week radiographs demonstrated lack of radiographic union at the first MPJ despite intact and well aligned hardware. A bone stimulator was utilized until radiographic union was obtained at sixteen weeks. The patient is now thirty months post-operation. They are without restriction to daily activities, without recurrence or new deformity, and are pleased with the outcome of the procedure.

REFERENCES