CHAPTER **9**

PANMETATARSAL HEAD RESECTION IN A NON-RHEUMATOID PATIENT WITH PROGRESSIVE METATARSUS ADDUCTUS: A Case Report

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INTRODUCTION

Panmetatarsal head resection was popularized in 1912 by Hoffman. Classically, panmetatarsal head resection has been commonly used in patients with severe rheumatoid arthritis, accompanied by progressive joint instability and dislocations of the metatarsophalangeal joints. The panmetatarsal head resection procedure has also been documented in the treatment for diabetic arthropathy of the forefoot. Metatarsus adductus has been identified as a newborn deformity, as well as an adolescent deformity associated with pes valgus and hallux abducto valgus. Metatarsus adductus has been described in the literature as a static, structural deformity. We present a case report of a 57-year-old non-rheumatoid woman. Her joint instability was due to a progressive metatarsus adductus deformity.

CASE REPORT

A 57-year-old woman was seen at our outpatient clinic with metatarsus adductus deformity of both feet. She had a severe deformity of the left foot in which her toes pointed in a lateral direction making it difficult for her to fit her foot into normal shoes. She cannot wear shoes without pain and the pain has been limiting her ability to perform her job. The pain had been increasing in severity for 5 years.

On physical examination, it was noted that digits 1-10 were abducted from the median body plane and an "S" shaped deformity was noted. Conventional radiographs of the left foot showed pronounced lateral deviation of digits 1-3, medial deviations of metatarsals 1-4, dislocation of the first metatarsophalangeal joint and subluxation of the second and third metatarsophalangeal joints.

Figure 1. Radiograph at 5 years preoperative.

Figure 2. Radiograph at 3 years preoperative.

Figure 3. Preoperative radiograph with progressive metatarsus adductus deformity.

Figure 4. Preoperative view.

Figure 5. View at 2 years postoperative.

Figure 6. Radiographic view 2 years postoperative.

The patient underwent an arthrodesis of the first metatarsophalangeal joint, panmetatarsal head resection, and arthroplasty of digits 2 and 3 on the left foot. The patient was immobilized in a posterior splint for 7 weeks and in a CAM walker for an additional 4 weeks. At 8 weeks postoperative, the patient began using a bone stimulator at the site of arthrodesis for 20 minutes a day. At 1 year follow-up the patient was fully weight bearing with no pain with activities and fusion of the first metatarsophalangeal joint. It has been approximately 2 years since the surgery and the patient remains pain-free.

DISCUSSION

Panmetatarsal head resection was developed for the relief of pain and deformity associated with the rheumatoid foot. In our case, the patient was non-rheumatoid; however, she had severe pain due to her metatarsus adductus deformity. Metatarsus adductus is a progressive deformity that must be recognized and treated in a timely fashion. In a long standing untreated or undertreated metatarsus adductus deformity, surgical intervention is a must. Due to the deformity of her foot and the severity of her pain, a panmetatarsal head resection was a viable option. Overall, the patient was pleased with the results of her surgery and continues to have no pain.

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