Forefoot Reconstruction Preserves Function in RA

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VIENNA — A new approach to forefoot reconstruction in patients with rheumatoid arthritis has shown superior results with regard to pain, deformity, and function, compared with conventional techniques, according to Takeshi Mitsuka, M.D., of the department of orthopedic surgery, Chiba Tokushukai Hospital, Funabashi, Japan.

Reconstruction of the lateral toes is done by means of a metatarsal oblique osteotomy. For the great toe, either a Swanson implant or a metatarsal osteotomy can be done, depending on the condition of the joint, and the result is the preservation of the function of the metatarsophalangeal joints, Dr. Mitsuka wrote in a poster presented at the annual European Congress of Rheumatology.

"I have been performing this procedure since 1998 for almost all rheumatoid [arthritis] patients with forefoot deformities. The outcome is better than with resection arthroplasty of the MTP [metatarsophalangeal] joints or arthrodesis of the big toe for stability and mobility of the joint, length of toe, gait, and cosmetic result," he told FAMILY PRACTICE NEWS.

A total of 53 forefoot reconstructions in 31 patients have been done to date. Mean age at time of surgery was 60 years, and the mean duration of rheumatoid arthritis until time of operation was 18 years.

At their latest follow-up, patients were evaluated clinically using the American Orthopedic Foot and Ankle Society (AOFAS) score. Hallux valgus angle and intermetatarsal angle were examined radiologically.

Two patients died of causes unrelated to surgery, and in one foot the Swanson implant was removed 11 months after placement because of reactive synovitis.

Among the remaining 48 feet, with a mean follow-up of 40 months, the AOFAS score for the great toe improved from an average of 36 points preoperatively to 89 points (out of 100). For the lateral toes, the average score improved from 27 points to 87 points.

The hallux valgus angle improved from an average of 45 degrees preoperatively to 19 degrees at the latest evaluation, Dr. Mitsuka noted at the meeting, which was sponsored by the European League Against Rheumatism.

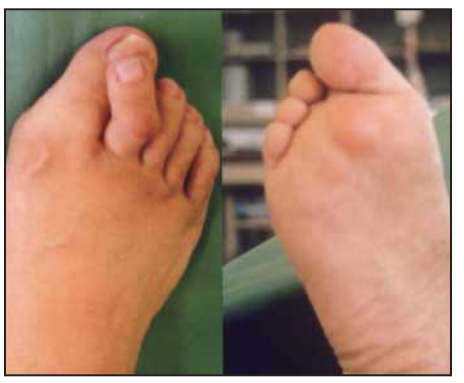
Intermetatarsal angle also improved, from an average of 16 degrees before surgery to 13 degrees.

Reconstruction of the great toe of 44 feet in 25 patients involved arthroplasty with a Swanson implant, and was done with a Mitchell's osteotomy in the remaining 9 feet in 6 patients.

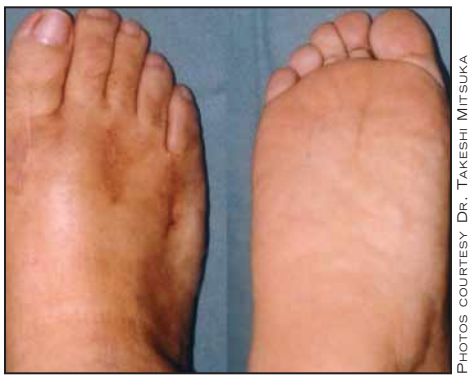
In the lateral toes, an oblique osteotomy was performed at the metatarsal neck, starting proximally on the dorsum and proceeding distally and plantarward at an angle of 45 degrees. This was then resected at a width of 5-15 mm.

The metatarsal head subsequently was freed from its plantar aspect, and the dislocated base of the proximal phalanx was corrected.

The osteotomized bones were then transfixed longitudinally by Kirschner wires from the distal phalanx to the metatarsal base. ■



A 53-year-old RA patient with forefoot deformities is shown prior to surgery.



PHOTOS COURTESY DR. TAKESHI MITSUKA

Reconstruction was performed by means of a metatarsal oblique osteotomy.