

# Scandinavian Foot Society

Bergen, June 12, 1996

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## Transverse distal metatarsal osteotomy for plantar callosity

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A follow-up study was made in 13 out of 18 patients who have had an operation for plantar callosities. The operation was a transverse osteotomy in the distal part of the metatarsal bone. 25 osteotomies were performed in 19 feet. The average age of the patients was 48 (25–62) years. The average time to follow-up was 7 (2–12) years.

The plantar skin normalized in all but two cases. There was one non-union, and two feet developed a transfer lesion. A hammertoe deformity developed in 8 operated rays and were associated with subluxation of the metatarso-phalangeal joint in 6 cases. The method was found effective in controlling there forefoot pain and the skin lesion, but was associated with a high rate of secondary toe deformities.

## Callus distraction with mini-fixator in reconstruction of metatarsal bones

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5 patients, 3–17 years old, with 6 operated congenital or acquired deformities of a metatarsal bone were presented. The first metatarsal bone was involved in 5 cases and the fourth metatarsal in 1 case. A subperiosteal osteotomy was done and distraction performed by means of an Orthofix mini fixator. A derotation or/and an angular correction was performed together with lengthening as a part of the operation in 4 cases. In 3 cases a provisional K-wire was used for joint stabilization and 1 had an extensor tendon lengthening.

The median lengthening of the metatarsal bone was 17.5 (9–24) mm corresponding to 45 (19–75)% of the original bone length. A minor collapse of the regenerate was seen in 1 case, and 1 patient had a fracture with spontaneous healing without problems.

## Hallux metatarso-phalangeal hemiartroplasty

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9 patients, 8 with hallux rigidus and 1 with rheumatoid arthritis, had a resection of the base of the first phalangeal bone and replacement by a Swanson metallic implant which served as a spacer.

The preliminary results were good as concerns mobility and patient satisfaction. One superficial infection occurred resulting in a stiff but painless joint.

## Measuring hallux valgus—comparison of conventional radiography and clinical parameters with regard to measurement accuracy

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The precision and the inter- as well as the intra-observer variation of radiographic measurements and clinical measurements were analyzed in relation to hallux valgus operations. The study included pre and postoperative radiographs from 20 chevrons and 20 proximal osteotomies together with 20 healthy controls for the clinical measurements.

Standard radiographs showed an average interobserver error of measurements of 6.4° for the hallux valgus angle, 5.4° for the intermetatarsal angle, and 2.0 mm for intermetatarsal distance. The intraobserver errors did not differ greatly. The ball circumference had an average measurement of error of 1.1 cm. The measurement error in metatarso-phalangeal joint movement was on average 12° in dorsiflexion and 16° in plantarflexion. Linear measurements were found more precise than angular measurements.

### Measurement of the forefoot with radiostereometry in hallux valgus surgery

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8 hallux valgus patients were marked with tantalum markers in conjunction with hallux valgus surgery (7 proximal osteotomies and 1 chevron osteotomy). The corrective changes were analyzed using standard radiographs and radiostereometry (RSA).

In 4 cases the correction measured with RSA corresponded to that measured with standard radiographs. In the other cases RSA showed that the correction was of a different size or direction than that measured on standard radiographs.

### The effect of extensor digitorum brevis transfer for chronic lateral ankle instability

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A follow-up study was made on patients operated on using a novel technique for improvement of ankle stability. The extensor digitorum brevis muscle was transferred proximally and attached by sutures to the antero-lateral part of the capsule. 38 patients filled out a questionnaire concerning the results of the operation. Furthermore, 32 of the underwent a clinical examination and an EMG measurements of the extensor digitorum brevis muscle.

90% of the patients had a feeling of a more stable ankle and had pain relief. 42% of athletes resumed their activities on the preinjury level. EMG activity in the extensor digitorum brevis muscle was observed during active motion of toes and on passive supination.

### Subcutaneous rupture of the tibialis anterior tendon—a report of two cases

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The number of previously published cases of a subcutaneous rupture of the tibialis anterior tendons is 56. Most of the ruptures occurred in men 60–70 years of age.

The 2 patients presented were women, 72 and 73 years old, respectively. One had a rupture 3 months after a steroid injection, and was misdiagnosed for 1 month. The second was misdiagnosed for 4 months. The tendon was reinserted in the navicular and the medial cuneiform bone, respectively. A tendon lengthening was done in 1 of the cases. Both had improvement in normal gait. The muscle-tendon was functioning in both cases, but power was poor.

### Fracture fixation of the calcaneus—two infected cases possibly caused by the use of Cryo-cuff bandage

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Cooling-compression bandages have become popular in prevention of pre- and postoperative swelling and pain. A disadvantage of the Cryo-cuff system for the ankle joint is a tendency to condense water on the skin. After introduction of the Cryo-cuff system in the postoperative treatment of internal fixated calcaneus fracture, 2 patients (the third and the fourth patient) got a deep infection.

Both patients were operated on 1 week after the injury. The skin was in good condition. Dicloxacillin was given at start of operation. A standard lateral L-incision was used. Internal fixation was done with screws and a plate. A small amount of persistent drainage was observed from the wounds without major signs of deep infection. Screws and plates was removed after six week when the fractures were stable. One of the patient had osteitis in the central part of the calcaneus and had a cancellous bone grafting. Both wounds healed uneventfully. Cultures obtained from the wound after the initial operation and cultures obtained perioperatively during revision both showed growth of *Enterobacter cloacae*. It is hypothesized that the moist environment created by the Cryo-cuff bandage increases the risk of penetration the wound by bacteria.

### Less pain in hallux valgus surgery by tourniquet placement at the ankle joint

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A prospective randomized study was undertaken in order to assess any difference in patient comfort and complications by two different positions of the tourniquet in hallux valgus surgery. 50 consecutive patients admitted for hallux valgus surgery were operated on under ankle block. The patients were randomized to tourniquet placement either at the ankle joint or at the middle of the calf. A tourniquet pressure of 100 mm Hg above the systolic blood pressure was applied. Patient discomfort during operation was rated by the patients using a visual analog scale. 6 and 10 weeks after operation the patients marked any painful areas or areas with a feeling of numbness on a drawing of the leg.

The group of patients who have had the distal placement of the tourniquet had significantly less pain during operation. There was no difference in the frequency of postoperative pain or numbness of the skin distal to the tourniquet.

### Treatment of apophystitis calcanei by a shoe insert

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10 boys, 10–13 years of age, were treated with a shoe insert at the heel in their daily shoes for calcaneal apophysitis. The insert was used during normal daily activity as well as sport activity. A follow-up by an interview was made after 2 weeks and by a questionnaire after 1 year of treatment. 9 of the 10 patients had immediate pain relief during sport. All were asymptomatic after 1 year.

### A shoe insert for metatarsalgia after hallux valgus surgery

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8 patients suffering from a transfer lesion after a distal osteotomy for hallux valgus were treated by an forefoot insert. The insert had an 6–8 mm elevation at the first metatarsal head. A follow-up study was made by a questionnaire 8 weeks after start of treatment. All the patients reported a complete pain relief.