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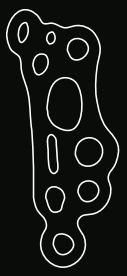
CASE STUDY



Treatment of acquired flatfoot deformity with TMT instability and HV deformity by performing TMT fusion and HV osteotomy

The Surgeon

Mario Herrera-Perrez

Dr. Mario Herrera is a Doctor of Medicine and Surgery from the University of La Laguna and a reference in advanced foot and ankle surgery, as well as arthroscopic surgery. He also has experience in total ankle prosthesis.

He combines his medical work with teaching as associate professor of Traumatology and Orthopaedics at the Faculty of Medicine of the University of La Laguna. He is also a reviewer for the Spanish Journal of Orthopaedic Surgery and Traumatology (RECOT) and a member of the Editorial Committee of the Spanish Journal of Foot Surgery.

He is currently a specialist at the CECOTEN Centre and is head of section of the Functional Foot and Ankle Unit at the University Hospital of the Canary Islands.

The Case

Patient Profile

A 65 year-old woman was diagnosed of an adult acquired flatfoot deformity with tarsometatarsal instability and hallux valgus deformity (Figs. 1 and 2). After conservative treatment with physiotherapy and insoles, a surgical procedure was considered.

Figure 1

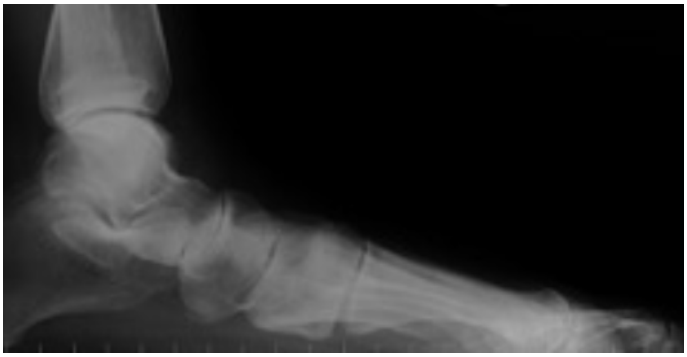


Figure 2

Fig. 1: Hallux valgus deformity.

Fig. 2: Disrupted Meary line in the AAFD.

Surgical Treatment

Through a medial approach of the first tarsometatarsal (TMT) joint, we performed a osteotomy of the base of the M1 parallel to the TMT joint and a second cut of the C1 just parallel to the axis of the M2. After this, we placed the TMT Medartis 2.8 Lapidus Medial plate. Before fixing the plate with screws, we put an interfragmentary compression screw from M1 to C1. In a second step we addressed the hallux valgus (HV) deformity: exostectomy, adductor tenotomy and akin osteotomy were performed.

Postoperative treatment

The aftercare treatment comprised a partial weight bearing in a stiff soled shoe for 6 weeks.

Evolution

After one year follow up, all the parameters are corrected, the foot is well aligned and the Lapidus procedure shows a complete TMT fusion (Figs. 3 and 4).

Fig. 3. TMT fusion and HV procedure.

Fig. 4. Lateral X-ray of the same case showing a normal Meary line.

Conclusion

The modified Lapidus procedure is considered a useful tool for correction of multiplanar deformities in the hallux valgus, including first metatarsal pronation. It offers a greater power of correction compared to most other osteotomies. The combination of a dorsal plate and an interfragmentary screw offers high stability in all planes.

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