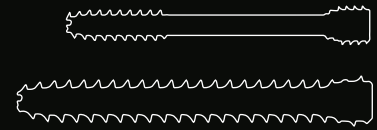


# CASE STUDY



## Treatment of hallux valgus and second ray syndrome treated by Scarf M1, P1 osteotomies and M2 Weil osteotomy

### The Surgeon

#### Jean-Luc BESSE MD PhD

Dr Jean-Luc Besse is a full-time orthopaedic surgeon, specialized in foot and ankle surgery, at Lyon-Sud University Hospital in France. After medical education at Alexis-Carrel Medical school–Lyon I University (1978–1984), residency in surgery, graduating in Orthopedic Surgery and Traumatology in 1989, certificates in Biology and Sports Medicine, Microsurgery, and Biologist qualified in animal experimentation, he was an assistant-professor from 1995–1999 and since then Hospital Practitioner in charge of foot and ankle surgery. He also has a Ph.D. in Biomechanics/Biomaterials (Aix-Marseille II 1995), certification to direct research (Lyon 2005) and belongs to Lyon 1 IFSTTAR-LBMC UMRT-9406 Biomechanics research unit.

Dr Besse is past president (2011–2012) of the French Association of Foot Surgery (AFCP) and during his term, he built the French Total Ankle Replacement Registry, which he still administers. He is also a member of the American Orthopaedic Foot and Ankle Society, and the education committee chairman of the European Foot and Ankle Society (EFAS).

He has 93 peer-reviewed articles, participated in more than 70 book chapters and received 3 awards for his published work.

### The Case



#### Patient History

A 43-year-old woman, with left hallux valgus associated with metatarsalgia and second ray syndrome with plantar keratosis. After conservative treatment (insoles – gastrocnemius stretching protocol) for eight months, a surgical correction was proposed.



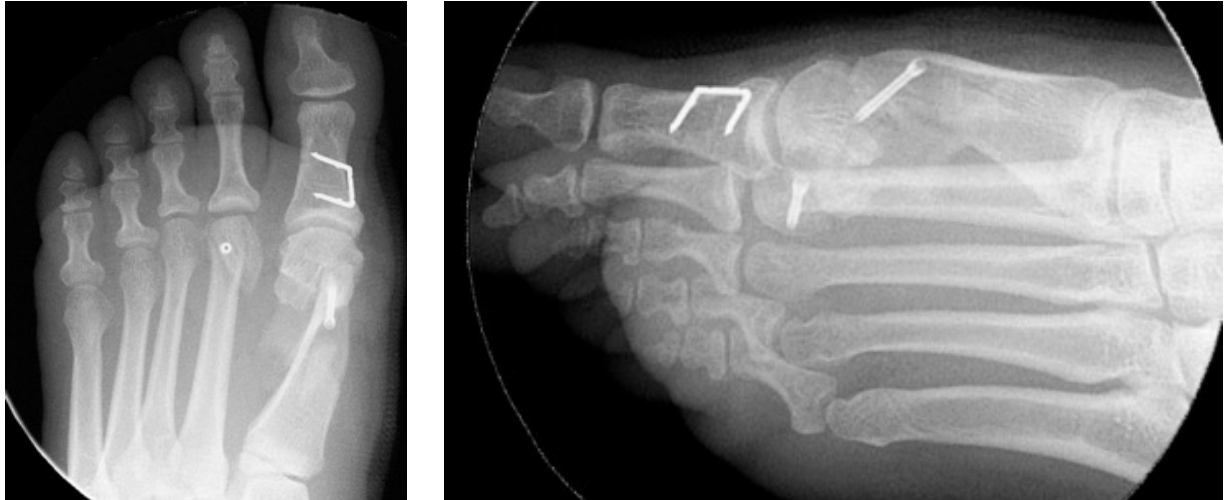
Figure 1–2 Preoperative AP WB-view (M1P1 33°, DMMA 10°, M1M2 13°, M2 long) and lateral WB-view



### Surgical Treatment

Through a medial approach, we performed an M1 Scarf osteotomy (5 mm shortening) fixed by CCS 2.2 screw (20 mm) and P1 Akin osteotomy osteosynthesized by Medartis staple. (Fig. 1, 2)

By a dorsal transverse incision, we associated an M2 Weil osteotomy (5 mm shortening) fixed by CCS 2.2 screw (11 mm). (Fig. 3)



Figures 3–4 Intraoperative radiographic control

- AP view checking the translation correction, shortening and position of the sesamoids
- Oblique view monitoring the lowering of the 1st metatarsal and the absence of lowering of the Weil osteotomy



### Postoperative Treatment

Full weight-bearing is started immediately, with a stiff-soled rocker-bottom shoe worn for 4 weeks.



### Conclusion

After one year, the left foot is well corrected (M1P1 10° – DMMA 2° – M1M2 6° – harmonious forefoot morphotype) and the patient is very satisfied (MTP1 ROM 60° – 30°, MTP2 ROM 60° – 40°)



Figures 5–6 Postoperative WB-X-rays 1 year after the surgery



Figure 7 Cosmetic aspect  
1 year after the surgery



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