

Hallux valgus mini-invasive surgery: comparison of two techniques

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Background Distal osteotomy of the first metatarsal is indicated for the surgical treatment of mild-to-moderate hallux valgus deformity.

Since over 13 years we have used the Boesch procedure [1, 2], modified by us with a capsulotomy and capsuloplasty, to correct the deformity. Usually the correction and the stabilization of the distal metatarsal osteotomy is kept by a Kirschner wire introduced from the apex of the finger and then pulled in the proximal metatarsal diaphysis passing paracortical by the phalanx. Sometimes the use of K-wire may create a decubitus ulcer or superficial infections. To avoid these complications in stabilization of the osteotomy we started to use a new system (Endolog) which consists in a titanium stem produced in three different curves inserted in the proximal metatarsal diaphysis and fixed to the first metatarsal head by a titanium screw after the lateral “tilt” of the head. With this device no hardware came out of the cutis.

Material and methods From January 2008 to June 2008 we implanted 10 Endolog devices. To compare the results obtained with the traditional technique with K wire stabilization we used two samples of patients similar by clinical characteristics. Then we choose for the evaluation 10 patients operated with the traditional technique and 10 patients operated with Endolog system.

Results The results valued with AOFAS score (92 points for traditional procedure and 94 for Endolog) and with the angular measures are superimposable in the two methods with a little better control of the angular values of the MP valgus angle, of the first IM angle, of

PASA and sesamoides bones positions achieved by the titanium device. Also the subjective satisfaction results to be better in the patients operated with the internal titanium device.

Conclusions From these early clinical evidences we can notice a little increase of positive results in the patients treated with the titanium device as concerning the better angular control of the deformity and the subjective satisfaction influenced by a rapid return to the daily activities and by the absence of device rising out of the skin.

Suggested readings

1. Magnan B, Bortolazzi R, Samaila E, Pezze` L, Rossi N, Bartolozzi P (2006) Percutaneous distal metatarsal osteotomy for correction of hallux valgus. Surgical technique. J Bone Joint Surg Am 88[Suppl 1]:135–148
2. Bo`sch P, Wanke S, Legenstein R (2000) Hallux valgus correction by the method of Bo`sch: a new technique with a seven-to-tenyear follow-up. Foot Ankle Clin 5(3):485–498