

abstract

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A comparison between Endolog technique and Percutaneous Distal Metatarsal Osteotomy (PDO)

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Introduction

This study evaluates the results of the new Endolog technique for Hallux Valgus correction, comparing them with results from another series of bunion deformities treated with PDO, to identify the appropriate indications for each.

Methods

From May 2008 to April 2009, using the Endolog technique, 30 feet were treated for mild to severe Hallux Valgus at Padua Orthopaedic Clinic. Clinical evaluation was performed pre-operatively, and 3 and 6 months using the AOFAS Hallux score.

Radiographic evaluation was performed by computer-assisted measurement pre and post-operatively and at 3 and 6 months. The radiological parameters measured included: IMA, HVA, DMAA, the sesamoids position and first MTP joint congruity. We used the t-test for statistical analysis ($p < 0,005$). In the same way we evaluated the other series of 30 feet treated with PDO between May 2005 and September 2008, comparing the results.

Results

The Endolog technique is an effective pain relief treatment, which realigns the hallux into a rectus position, preserves joint motion and restores a congruous MTP joint (AOFAS score was: 86,3 for Endolog group and 68,7 for PDO group). Both techniques obtained excellent radiographic angular correction, but just post-operatively. At follow-up multi-planar correction was better maintained by the Endolog device, the derotation of the metatarsal head, the anatomic position of the sesamoid by P.D.O. and the correction of the clinical valgus in both series.

Conclusion

The data confirms the validity of the PDO for correcting mild and moderate Hallux Valgus and encourages use of the Endolog technique also for severe deformities.