

Clinical and Radiographic Outcomes of the Infinity Total Ankle Arthroplasty System: Early Results From a Prospective Single Centre Study

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Introduction/Purpose: We report our early results of the Infinity Total Ankle Arthroplasty (TAA) system, a third generation, constrained implant, recently introduced to the UK market.

Methods: All ankles were uncemented and standard instrumentation was used. Patients were reviewed at 3, 6 and 12 months for radiological and clinical assessment including Ankle Osteoarthritis Score (AOS), Visual Analogue Scale (VAS) and subjective component of AOFAS Ankle/Hindfoot score.

Results: Mean age was 66 (range 42-88), 14 females and 21 males. The mean follow-up 12 months (range, 4-18 months), and no patients were lost to follow-up.

The diagnosis was post-traumatic in 15 cases, primary osteoarthritis in 15 and inflammatory arthritis in 5 cases. Preoperative coronal alignment deformity was < 10 degrees in 54%, 10-20 degrees in 43% and >20 degrees in 3%. Mean AOS score improved from 64 to 24, AOFAS score improved from 19/70 to 49/70 and VAS from 7.0 to 2.0. Tibial component subsidence was noted in 1 case (3%), and asymptomatic periprosthetic lucent lines in 6 cases (17%). No ankles were revised. Complications included intraoperative medial malleolar fracture (8.5%), delayed wound healing (14%), tibial osteotomy non-union (3%), and regional pain syndrome (3%). The mean radiographic coronal plane alignment of the tibial component was 1.9 degrees varus (range, 5.3 varus to 1.7 valgus) and its mean sagittal plane alignment 2.8 (range -1.7 to 8.5) degrees dorsiflexion.

Conclusion: Our early experience has demonstrated good patient outcomes, low complication rate and reproducible alignment with the Infinity implant.

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