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Short-term complications, reoperations, and radiographic outcomes of Infinity® total ankle arthroplasty

Guilherme Honda Saito¹, Austin Sanders¹, Cesar de Cesar Netto¹, Martin O’Malley¹, Scott Ellis¹, Constantine Demetracopoulos¹

¹. Hospital for Special Surgery, New York City, USA.

ABSTRACT

Introduction: With the increasing use of total ankle arthroplasty (TAA), new implants with varied configurations are being developed every year. This study aimed to assess the early complications, reoperations, and radiographic and clinical outcomes of this novel implant.

Methods: A retrospective analysis of 64 consecutive ankles that underwent a primary Infinity® TAA was performed. Patients had an average follow-up of 24.5 (range, 18-39) months. Medical records were reviewed to determine the incidence of complications, reoperations, and revisions. Additionally, patient-reported outcomes were analyzed with the Foot and Ankle Outcome Score (FAOS).

Results: Survivorship of the implant was 95.3%. Fourteen ankles (21.8%) presented a total of 17 complications. A total of 12 reoperations were necessary in 11 ankles (17.1%). Revision surgery was indicated for 3 ankles (4.7%) as a result of subsidence of the implant. Tibiotalar coronal deformity was significantly improved after surgery (P<.0001) and maintained at the latest follow-up (P=.81). Periprosthetic radiolucent lines were observed around the tibial component in 20 ankles (31%) and around the talar component in 2 ankles (3.1%). A tibial cyst was observed in 1 ankle (1.5%). Outcome scores were significantly improved for all FAOS components analyzed (P<.0001).

Conclusion: Most complications observed in the study were minor and successfully treated with a single reoperation procedure or nonoperatively. Failures and radiographic abnormalities were most commonly related to the tibial implant. Further studies with longer follow-ups are needed to evaluate the survivorship of the tibial implant over the long term.

Keywords: Arthroplasty, replacement, ankle; Ankle arthritis; Fixed bearing.