SATURDAY
11:45 – 12:15 pm
PAPER SESSION 19: TAA

Moderators:
W. Bret Smith, DO, MSc (Lexington, South Carolina)
Aaron J. Guyer, MD (Tallahassee, Florida)

11:45 pm
Early Patient Satisfaction Results on a Modern Generation Fixed-Bearing Total Ankle Arthroplasty
Presenting Author:
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Introduction
This study presents early results on the largest series of U.S. patients undergoing implantation of a modern fixed-bearing total ankle arthroplasty.

Methods
We retrospectively reviewed 163 consecutive patients who underwent implantation with 173 modern, fixed-bearing total ankle arthroplasties at a single institution. SF-12 and AOS forms were prospectively collected preoperatively and at each follow-up appointment. AOFAS data was recorded retrospectively for the preoperative evaluation and at each annual follow-up appointment or at most recent follow-up. A patient satisfaction survey was distributed to all patients and results were tabulated. Average follow up for outcome scores 29.8 months (range 12-54 months).

Results
173 total ankle arthroplasties were performed on 163 patients. Implant survival at an average of 21.8 months was 98% with component revision or conversion to arthrodesis used as the endpoint for implant failure. Failure was due to component subsidence (1 patient), talar stress fracture (1 patient) and failure of a deltoid ligament reconstruction resulting from progressive instability (1 patient). Two additional implants are currently at risk due to subsidence of the talar component related to avascular necrosis. 128 patients underwent concomitant procedures, with the most common procedures being Achilles tendon lengthening, lateral ligament reconstruction (Brostrom or Christman-Snook procedures) and hardware removal. There were 54 complications in 43 ankles, 46% being superficial infections treated with oral antibiotics or wound dehiscence treated with local wound care. 7/173 returned to the operating room for an additional procedure, most commonly debridement of the medial or lateral gutter (3 patients), arthrodesis for failure (3 patients). The mean AOFAS preoperatively was 44.0 and at latest follow-up was 80.4 (P<0.01). The mean SF-12 was 57.8 pre-operatively and 82.8 at latest follow-up (p<0.01). AOS pain and disability scores also improved significantly after total ankle arthroplasty (p<0.01). The results of the recently administered patient satisfaction survey indicated that 79% experienced very good to excellent pain relief, 66% reported improved ability to perform daily tasks, 42% felt that it improved their ability to perform heavy work or recreational activities and 96% would probably or definitely have the procedure on the contralateral ankle.

Conclusion
Early results of a large series of modern total ankle arthroplasty demonstrate improvement in patient satisfaction, quality of life, activity, and pain for patients with end-stage ankle arthritis. Early failure of the prosthesis is most commonly due to failure of the talar component through subsidence, fracture, or avascular necrosis of the talus.