

Total ankle replacement versus ankle arthrodesis for patients aged 50-85 years with end-stage ankle osteoarthritis: the TARVA RCT, Goldberg, et al. *Health Technol Assess.* 2023 Mar; 27(5): 1–80

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Level of Evidence: 2

Reviewer:

Devin Towson, DPM, PGY-III

DVA - Southern Arizona Health Care System

This multi-centred, parallel-group, non-blinded and randomised controlled trial compares the effectiveness of total ankle replacement (TAR) versus Ankle Arthrodesis (AA) in patients aged 50-85 with end stage ankle osteoarthritis. The purpose of the study was to determine which surgical procedure leads to better outcomes in terms of pain, function and quality of life.

The study method used was a randomized controlled trial (RCT) with 303 patients, divided into two groups: TAR (152 patients) and AA (151 patients) groups. Patients were assessed pre-operatively and at 6,12, and 24 months post operatively. Outcomes were measured using the *Manchester-Oxford Foot Questionnaire*, which includes inquiries regarding pain symptoms at various day-to-day activities – 16 total questions.

The results of the both groups showed significant improvements in pain and function. However, the TAR patient cohort had better scores in pain relief, functional ability, and patient reported outcomes. The AA patient cohort had higher complication rates and longer hospital stay.

The study suggests that total ankle replacement is a more effective treatment option than ankle arthrodesis for patients aged 50-85 with end stage ankle osteoarthritis. TAR provided better pain relief, functional ability, and quality of life. However, the authors caution that their results were only complied up to 52 weeks status-post surgical intervention, and encouraged longer-term studies to measure both of these treatment’s efficacy, complications and longevity.



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