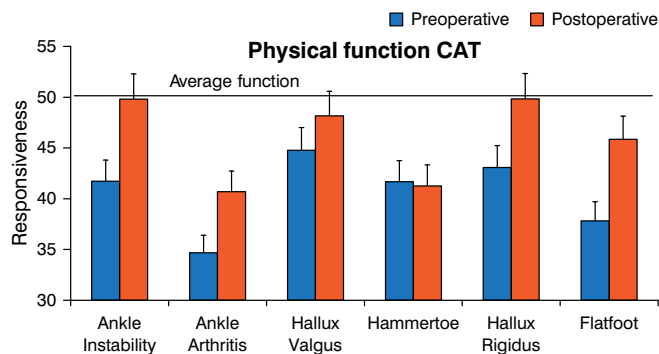


Figure 1. Psychometric Properties



CAT, computer adaptive testing.

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The item counts (number of questions) for the 3 instruments were 4.3 for the PF CAT, 28.0 for the FAAM, and 23.0 for the FFI. Patients completed the PF CAT in 44 seconds, the FAAM_ADL in 179 seconds, and the FFI-5pt in 194 seconds, showing that the PF CAT was significantly more efficient than both other measures ($P < .000$).

Dr Hunt concluded that the PROMIS PF CAT allows for consistent outcomes assessment across orthopaedic subspecialties, while providing a high degree of precision and efficiency. However, it is important to remember that physical function is not the only domain to measure; mental and social health can also affect disease burden and outcomes, and should be considered during outcomes assessment.

Comparable Outcomes With Total Ankle Arthroplasty and AAA

Written by Toni Rizzo

End-stage ankle arthritis is a disabling condition, with similar morbidity, pain, and loss of function as hip arthritis. Open ankle arthrodesis (OAA) has been the gold standard for treatment of end-stage ankle arthritis, but better outcomes have been obtained with arthroscopic ankle arthrodesis (AAA). Total ankle replacement (TAR) and fusion outcomes depend on the involvement of the surrounding joints and the presence of intra-articular or extra-articular deformity. Historically, the results and longevity of TAR have been less reproducible. Ankle replacement is gaining in popularity with the availability of newer designs.

The aim of this study, presented by Andrea Nicole Veljkovic, MD, University of Toronto, Toronto, Ontario,

Canada, was to compare the outcomes of TAR, AAA, and OAA in patients with isolated, nondeformed ankle arthritis. This prospective study enrolled 104 women and 134 men aged > 17 years with Canadian Orthopedic Foot and Ankle Society type 1, isolated, nondeformed arthritic ankles, with < 10° of intra-articular and extra-articular deformity and no arthritis in the triple-joint complex.

The patients underwent TAR ($n = 88$), AAA ($n = 50$), or OAA ($n = 100$). The primary outcome measure was substantial reoperation and Ankle Osteoarthritis Scale (AOS) total change score. The secondary outcome measures were physical and mental component summary change scores. End points included survivorship with removal of the metal components for TAR, revision of the arthrodesis, and substantial reoperation. The patients were followed for an average of 3.57 ± 1.60 years.

The primary outcome results showed that there were more reoperations in and about the ankle for TAR. There was a trend toward substantial revision rates in patients who underwent TAR and OAA. Patients with TAR had more substantial reoperation rates than did those with AAA or OAA ($P = .0003$).

An analysis of the effects of surgery type on substantial reoperation rates—controlling for age, body mass index, and sex—found that patients with TAR had more reoperations ($Pr > ChiSq = .0112$). There were significant differences among the groups in the AOS change score ($P = .0050$), AOS pain difference ($P = .0486$), and AOS difficulty difference ($P = .0013$), with the TAR and AAA groups faring better than the OAA group.

There were no significant differences between TAR and AAA in AOS total difference, AOS pain difference, AOS difficulty difference, physical component summary difference, or mental component summary difference. The TAR group had more substantial reoperations versus the AAA group ($P = .0019$). There were significant differences with AAA versus OAA in mean AOS total difference (38.31 vs 25.82; $P = .0043$), AOS pain difference (36.12 vs 25.64; $P = .0278$), and AOS difficulty difference (40.50 vs 25.99; $P = .0017$) but not in substantial reoperation (4.0% vs 7.0%; $P = .7183$). Significant differences were observed between TAR and OAA in mean AOS total difference (34.41 vs 25.82; $P = .0163$), AOS difficulty difference (36.66 vs 25.99; $P = .0045$), and substantial reoperation (23.86% vs 7.00%; $P = .0017$).

Based on the AOS total, pain, and difficulty change scores, TAR and AAA had significantly better outcomes than OAA. There were significantly fewer revisions and substantial reoperations with AAA and OAA than with TAR. TAR and AAA are relatively comparable options for the treatment of end-stage type 1 ankle arthritis with regard to outcomes.