How do 5 Year Patient Reported Outcomes (PROMs) of Total Ankle Arthroplasty Compare to Total Hip and Knee Arthroplasty?

Presenting Author:
Jayasree R. Ramaskandhan, MSc, MPTh

Additional Authors:
Anjum Rashid, MBBS, FCPS, FRCS, FRCS (Tr&Orth), Malik S. Siddique, FRCS (Tr & Orth)

Category: Ankle Arthritis

Keywords: hip, knee, ankle, arthroplasty, joint replacement, outcomes, pain, function, patient satisfaction

Introduction/Purpose: Ankle arthritis is a leading cause of pain and disability. The effect of this condition on physical and mental health is similar to end stage hip arthritis. There is paucity of literature on PROMS outcomes following total ankle replacements (TAR) in comparison to total hip replacement (THR) or knee replacement (TKR). We aimed to study the 5 year outcomes of TAR in comparison with TKR and THR

Methods: PROMS data from patients who underwent a primary THR, TKR or TAR from March 2003 to 2013 were collected from our hospital patient registry. They were divided into 3 groups based on the type of primary joint replacement. Patient demographics and patient reported outcomes (WOMAC, SF-36 scores and patient satisfaction scores at follow up) were compared at pre-op and 5 year follow up.

Results: There was data available on 1920 THR, 2582 TKR and 248 TAR patients. Pre-operatively, TAR patients reported higher function scores when compared to THR and TKR (40.2 vs. 34.2 and 35.8; p < 0.05). For SF-36 scores, there was no difference between groups for general health, role emotional components (P>0.05); TAR patients reported similar scores to TKRs for physical domains; to THRs for the mental domains (P>0.05). At 5 years post-op, TARs reported lower scores than THRs and TKRs for function and stiffness. For SF-36 scores, TARs reported similar outcomes to THR and TKR for mental health components (p>0.05), similar scores to TKR for 3/4 physical domains (p < 0.05), but lower satisfaction rates for ADL and recreation when compared to THR (P < 0.05).

Conclusion: TAR patients had similar outcomes to THR or TKR patients for disease specific and mental health domains, and lower patient satisfaction rates in terms of pain relief, ADL and
recreation. Further research is warranted including clinical outcomes along with PROMS with a long term follow up.
Domain – Role Physical

Mean Interval plot for Role Physical across groups
95% CI for the Mean

Significant difference between groups (p<0.05)

Demographics – Mean Age

Mean Age by Procedure

Significant difference between groups (p<0.05)
Demographics – Mean BMI

Mean BMI by Op Procedure
95% CI for the Mean

Body Mass Index

THR

TKR

TAR

27.9044

29.8563

28.5932

Op Procedure

Individual standard deviations were used to calculate the intervals.

Significant difference between groups (p<0.05)