

4<sup>th</sup> International Conference on

# Orthopedics & Rheumatology

October 26-28, 2015 Baltimore, Maryland, USA

## The outcome of uni-compartmental knee arthroplasties after aseptic revision into total knee arthroplasties

**Tesfaye Hordofa Leta**  
University of Bergen, Norway

**Background:** The general recommendation for a failed primary unicompartmental knee arthroplasty (UKA) is revision to a total knee arthroplasty (TKA). Many surgeons prefer to use UKAs in younger patients to postpone TKA believing that the results after revision from a UKA to a TKA is equal to a primary TKA and better than a revision TKA. For this to be true the rev-UKA should outperform the rev-TKA. The purpose of the present study was to compare the outcomes, surgical procedures, and mode of failure of failed primary UKAs and primary TKAs revised to TKAs.

**Method:** The study was based on 768 failed primary TKAs revised to TKAs (rev-TKAs) and 578 failed primary UKAs revised to TKAs (rev-UKAs) and reported to the Norwegian Arthroplasty Register between 1994 and 2011. Patient-reported outcome measures (PROMs) including the EQ-5D, the Knee Injury and Osteoarthritis Outcome Score (KOOS), and Visual Analogue Scales assessing satisfaction and pain were used. Kaplan-Meier and Cox-regression analyses were performed to assess the survival rate and the risk of re-revision. The independent student's t-test and multiple linear regression were used to estimate the differences in mean scores in PROMs between the two groups.

**Results:** Overall, 12% of rev-UKAs and 13% of rev-TKAs were re-revised between 1994 and 2011. The 10 years survival percentage of rev-UKAs vs. rev-TKAs was 82 vs. 81%, respectively ( $p=0.1$ ). There was no difference in the overall risk of re-revision for rev-UKAs vs. rev-TKAs ( $RR= 1.3$ ;  $p=0.1$ ), nor did we find any differences in the PROM scores. However, the risk of re-revision was 2 times higher for rev-TKA patients aged over 70 years ( $RR=2.2$ ;  $p=0.04$ ). Loose tibia (28 vs. 17%), pain alone (22 vs. 12%), instability (19 vs. 19%), and deep infection (16 vs. 31%) were major causes of re-revision for rev-UKAs vs. rev-TKAs, respectively but the observed differences were not statistically significant. The surgical procedure for rev-TKAs took longer time (mean=150 vs. 114 minutes) and more of the operations needed stems (58 vs. 19%), and stabilization (27 vs. 9%) compared to rev-UKAs.

**Conclusion:** Despite the surgical procedure of rev-TKA seeming technically more difficult compared to that of rev-UKA, the mode of failure and the overall outcome of rev-UKAs and rev-TKAs were similar. Thus, the argument that the outcome of revising UKA to TKA is similar to primary TKA could not be supported by the present study findings

### Biography

Tesfaye Hordofa Leta received BEd in Pedagogical Science from Bahir Dar University, Ethiopia in 1998, BSc in Nursing from Bergen University College in 2008 and MPhil in International Health from University of Bergen in 2010. He is working as Authorized Nurse at the Department of Orthopedic Surgery, Haukeland University Hospital since 2010. Currently, he is a PhD candidate at the University of Bergen, Bergen, Norway since 2013. The title of his PhD project is "Outcome of revision knee arthroplasty in Norway (1994-2011) with special focus on implants survival rate, risk of re-revision, pain, satisfaction and health related quality of life".

[tesfaye.hordofa.leta@helse-bergen.no](mailto:tesfaye.hordofa.leta@helse-bergen.no)

### Notes: