#2304 - Posters

The Effect Of Primary Diagnosis On The Survival After Total Hip Arthroplasty

Orthopaedics / Pelvis, Hip & Femur / Joint Replacement - Primary

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Keywords: THA, Survival, Primary Diagnosis, Femoral Fracture, Osteoarthritis

Background
Based on the literature, worse results are expected after total hip arthroplasty (THA) in patients with a primary diagnosis of femoral neck fracture compared to the primary diagnosis osteoarthritis. Although several patient-, surgeon-, and procedure-related factors might play a role in this difference, the exact reason is unknown since these studies are mostly based on arthroplasty registers which don't contain all this information.

Objectives
To evaluate the difference in survival between THA for acute femoral fractures and THA for osteoarthritis using the same prosthesis in the same hospital.

Study Design & Methods
We included all primary THA with osteoarthritis (OA group) or acute femoral fracture (fracture group) as the primary diagnosis from 2009 until September 2014 to ensure at least 2 years follow-up. All primary THA were performed in our hospital with the uncemented Accolade femur component and Trident acetabular component (both Stryker). Data was gathered from patient records and the nationwide arthroplasty register. Chi-square tests were used to compare the distribution of reasons for revision across the fracture and OA group. Cox proportional hazards regression was used to study the effect of diagnosis on the survival rate correcting for confounders as age, gender and ASA classification.

Results
At mean follow-up of 4.4 years (0-7.6) survival rate was 96.0% in the OA group (N=2654) compared to 96.6% in the fracture group (N=176). 110 (3.8%) of 2830 hips were revised. Reasons for revision were dislocation in 18 (0.6%), periprosthetic fracture in 24 (0.8%), infection in 13 (0.5%), aseptic loosening in 47 (1.7%) and revisions for various reasons in 8 (0.3%) of the patients. Chi-square tests revealed no significant difference between the OA and fracture group for these revision reasons. Moreover, cox proportional hazards regression revealed that the risk of any revision was comparable between the fracture and the OA group.

Conclusions
In contrast to previous registry studies, in our cohort of 2830 THA no differences in survival were found between THA for OA and for acute femoral fractures. Possible explanations might be that both the acute fractures and the elective osteoarthritis patients were treated by the exact same implant and the same set of orthopedic surgeons .