Summary of research proposal LROI

Title:
Is cemented reverse total shoulder arthroplasty associated with lower revision rates compared to cementless reverse total shoulder arthroplasty in geriatric patients with a proximal humerus fracture? An analysis from the Dutch Arthroplasty Register

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Abstract:
It is unclear if outcomes of humeral cement fixation in reverse total shoulder arthroplasty (RTSA) for treatment of proximal humerus fractures within geriatric patients are superior to cementless fixation. Research questions: (1) Is cemented RTSA associated with fewer humeral stem related revisions compared to cementless RTSA in patients aged 60 years or older with a proximal humerus fracture? (2) What is the overall revision rate and the revision rate due to aseptic loosening of the humeral component and periprosthetic humeral fractures in patients with cemented and cementless RTSA? (3) Do age, gender, and American Society of Anesthesiologists (ASA) score influence revision rates? A Kaplan-Meier estimate will be calculated to show the survival of cemented and cementless RTSA over time. The 2- and 5-year cumulative survival rates will be reported with a 95% confidence interval and compared with the log rank test. A Cox proportional-hazards model will be used to assess the effect of age, gender, and ASA score on revision surgery. This project should be considered as a first step to stimulate more research on this issue. Follow-up projects are warranted to implement results in clinical practice and achieve our ultimate goals: (1) assist surgeons in decision making, (2) reduce patients' risk for revision surgery, and (3) improve quality of patient consultation by accurately advising them on revision risk.

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