

Summary of research proposal LROI



Title:

Outcome of Total Hip Arthroplasty after pediatric hip disorders: Analysis of >2,500 Primary Hip Replacements in patients under 55 years old in the Dutch Arthroplasty Registry from 2007- 2020

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Abstract:

Total hip arthroplasty (THA) is considered as one of the most successful surgical procedures, with a significant positive effect on quality of life and daily functioning, especially for the elderly. THA can also be indicated in younger patients, who have, however, higher demands and a longer life expectancy. Consequently, reported outcomes and prosthesis survival can be inferior in young patients. In most studies on THA in young patients there is no stratification or consideration of underlying diagnoses. However, specifically in this population, pediatric hip disorders, like hip dysplasia (DDH), or Perthes disease are important causes of (secondary) osteoarthritis. These different pediatric hip disorders can coincide with specific surgical challenges. For that matter, DDH and Perthes lead to pathomorphologic changes of the acetabulum and femur, and limited bone stock. Hence, the surgeon must be prepared for e.g. acetabulum bone deficiency and reconstructions, under- or oversizing of the cup, altered hip center, increased anteversion, coxa valga, and coxa vara. Little is known on the baseline characteristics, surgical characteristics, complications and prosthesis survival of THA in these specific young patients with secondary osteoarthritis due to DDH or Perthes disease. Therefore, the aim of our study is to assess demographics, surgical approach, implant and bearing type, implant fixation and prosthesis survival (specifically acetabular component loosening) in patients younger than 55 years with THA for secondary osteoarthritis due to pediatric hip disorders, using data from the Dutch Arthroplasty Registry. As comparison, we compare the pediatric hip disorders group with patients undergoing THA under the age of 55 for primary osteoarthritis.

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