Reviewer's report

Title: Ipsilateral Lower Extremity Joint Involvement Increases the Risk of Poor Pain and Function Outcomes after Hip or Knee Arthroplasty

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Reviewer: David Beverland

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TITLE

Ipsilateral Lower Extremity Joint Involvement Increases the Risk of Poor Pain and Function Outcomes after Hip or Knee Arthroplasty

Abstract

Methods

Authors say “In this prospectively cohort study” should read “In this prospective cohort study”. Having read the paper I would have thought that this would be more accurately described as a retrospective study of prospectively collected data.

Introduction

Live 4, reference 2. I haven’t read the reference but the authors say “Primary THA and TKA exceeded 1.3 million in 2009”. The reference appears to have been published in 2007 so was this a mistake? Otherwise the Introduction is clear and well written.

Methods

Again note earlier comment on whether or not there was a retrospective nature to this study.

The patients were contacted in one of three ways
1 Questionnaires mailed to the patients
2 Administered during the clinic visit or
3 By telephone contact.

I think it would be interesting for readers to know what proportion of patients at the Mayo clinic were contacted using each method. Presumably this has a major impact on the response rate assuming that there is 100% response rate from those patients who attend the clinic.

Predictor Variable and its Definition

The authors say “The main predictor of interest was the presence of ipsilateral
knee involvement”. I don’t think the authors actually define what they mean by involvement, for example, do the authors just take the patient’s word for it that their other joint is “involved” or is it confirmed that they have some pathology in that joint such as a degenerative change or a previous arthroplasty.

Covariates of Interest

Item (7) – the authors say “assessed by same questions as detailed above preoperatively”. Do the authors mean post operatively here?

Statistical Analyses

I am unable to comment on this.

Results

Ipsilateral Knee/Hip involvement – again as above I am not clear what “involvement” means.

Non-response Bias

Paragraphs 2 and 3, although they make sense, I find them hard to read and understand easily and perhaps could be reworded to improve on clarity.

Also as commented earlier it would be interesting within this “non-response” section to know what method of contact produced the best results in terms of having the lowest non-response.

Discussion

End of paragraph 2 authors say “Whether treatment of ipsilateral knee/hip involvement with physical therapy or other modalities can improve index THA/TKA remains to be seen”. Again it would be important to know what was meant by involvement, how often was this involvement due to a degenerative change that could be simply addressed by the appropriate arthroplasty and how many were due to previous arthroplasty. A previous arthroplasty could be failing and could respond to revision surgery.

In the final paragraph “In summary, we found that ipsilateral knee/hip involvement at the time of surgery was a significant predictor of poor pain and function limitation after primary THA/TKA”. It is not clear in the Methods as to whether or not the questions about ipsilateral knee/hip involvement were asked at all three time intervals. This comment would seem to imply that it was just asked at the time of surgery and not at the two and five year intervals.

Overall Comments

This is a well written paper. Essentially the authors found that ipsilateral knee or hip involvement at the time of surgery was a significant predictor of poor pain and functional limitation after primary THA/TKA. Although perhaps these conclusions are predictable as the authors also say there are no published studies describing the effect of ipsilateral lower extremity joint involvement on patient-reported
outcomes after hip or knee arthroplasty. I consider the paper worthy of publication without any major changes.

David Beverland
Orthopaedic Surgeon
Musgrave Park Hospital
Belfast
N. Ireland

**Quality of written English:** Acceptable

**Statistical review:** Yes, but I do not feel adequately qualified to assess the statistics.

**Declaration of competing interests:**

I declare that I have no competing interests