Reviewer's report

Title: Risk factors for failure of revision total hip arthroplasty using a Kerboull-type acetabular reinforcement device

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Reviewer: John P Albright

Reviewer's report:

This is a case series report of the experience of revision total hip replacements from one institution with moderately long follow-up. The database is diluted by the fact that, even though a single fixation type implant was used for reinforcement, the type of graphing material used to fill the defects varied and the AAOS classification of the defects being addressed also varied. Basically the article is sufficiently well written that I have no particular editorial comments except when it comes to the presentation and discussion about the impact of the graph type. Specific Comments: Figure 4: It is clear that the most disastrous category of patients appear to be difficult to achieve results for. However, even for this category the numbers are so small (e.g., 5) that statistical significance is actually meaningless because of the small number of patients compared to category 3 and category 2. Even more questionable is the validity of the observation that use of beta-TCP is statistically significant in failure rate when one looks at the details of the results closely. It is suggested that in order to allow the reader more information about category 3 failures and beta-TCP versus the other two types of bone grafts a more detailed table needs to be created that perhaps even includes the complete data table or the equivalent graph that clearly depicts type of graft versus length of follow-up versus success or failure. It appears that length of time since surgery alone is directly associated with decreasing success rate. Since the average for 5 years is around 95% and the average for 8 years is around 82% and the average for 9 years is 74%. Depicting both factors for this AAOS grade III will be better clarified by the suggested additional table or graph and this will allow the readers a more understandable assessment. The only other suggestion is that the readers will not be familiar with how the photograph of the strange looking implant fits in the patient. It is suggested that an additional image be provided that is of a representative x-ray of a post-op patient.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.
No

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

Not relevant to this manuscript

Quality of written English
Please indicate the quality of language in the manuscript:

Acceptable

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