Acetabulum Only Revision Hip Arthroplasty Is Not Necessarily Associated With Poorer Outcomes

JW Lim, BA Clift, D Ridley, LR Johnston
Department of Orthopaedics and Trauma, Ninewells Hospital and Medical School, Dundee, Scotland, UK.

INTRODUCTION
With an ageing population, the total hip arthroplasty rate and revision rate are expected to increase over time. The co-existence of a stable and a loose component may pose a clinical dilemma for the surgeon. Acetabulum-only revision total hip arthroplasty (ArTHA) can be technically challenging due to the limited exposure and was suggested to be associated with higher dislocation risk due to difficulty in soft tissue balancing. On the other hand, total revision hip arthroplasty (TrTHA) can often result in further destruction of the bone stock, longer operative time and higher complication rate. Furthermore, there is still no clear consensus with regard to the best approach in revision total hip arthroplasty (rTHA).

AIM
To evaluate the intermediate functional outcomes and survivorships of ArTHA with an age and gender matched TrTHA cohort.

METHOD
We retrospectively reviewed:
- Pain, function and total Harris Hip scores (HHS)
- Medical complications
- Any event of subluxation and dislocation
- Survival years
- Reasons for re-revision
- Additional functional outcomes and dislocation rate between ArTHA and TrTHA cohorts with different surgical approaches in NHS Tayside. All data was collected independently by Tayside Arthroplasty Audit Group (TAAG). Unmatched ArTHA cases and all resurfacings were excluded.

The Mann-Whitney test and the Kruskal Wallis test were used to assess the statistical significance. Kaplan-Meier survivorship, with the need for repeat revision surgery as the endpoint, was used for survival analysis.

RESULT
- 303 ArTHAs and another 303 matching TrTHAs were reviewed.
- The most common indication for rTHA in both cohorts was aseptic loosening.
- Our institute was able to achieve more than 90% satisfaction rate over 5-year study for both cohorts.
- Pre-operative pain, function and total HHS were significantly better in the ArTHA cohort (p-value = 0.045, 0.003, 0.011).
- The ArTHA cohort did not appear to be inferior than TrTHA cohort.
- No significant differences in pain, function and total HHS at any point over the 5 years study (Figure 1, 2 and 3).

CONCLUSION
- ArTHA can provide similar functional outcome as TrTHA, with fewer postoperative medical complications, a low dislocation rate and an acceptable re-revision rate.
- Further study regarding surgical approaches is still warranted, but there was no evidence in this study to suggest that the perthor approach had a higher dislocation rate, and it can be safely used in either ArTHA or TrTHA without an increased risk of instability.

REFERENCES

ACKNOWLEDGEMENT
TAAG, Mr. Ian Christie, Mr. Weijie Wang