INTRODUCTION

- Birmingham hip resurfacing (BHR) has been proposed to be a favourable treatment option for young patients.
- However, the use of BHR remains debatable due to the concern of increased revision rate in female patients.
- Controversy still remains over the claim of superior functional outcomes of BHR compared with total hip arthroplasty (THA).

AIM

To compare the outcomes of BHR in female patients to a best possible matched THA female cohort.

METHOD

- The BHR and THA cohorts from a prospective regional arthroplasty database were exactly matched on:
  - Age, diagnosis, year of operation and preoperative Harris Hip Score (HHS) of +/- 2 points.
  - For cases that could not be matched, the matching criteria was persisted on the diagnosis and the matching was relaxed to:
    - Age +/- 10 years, year of operation +/- 3 years and preoperative HHS +/- 5 points.
- Pain, function and total HHS and Kaplan-Meir survivorship for BHR and THA cohorts were compared.
- Metal-on-metal THA cohort was excluded from matching.

RESULTS

- 199 patients in each cohort, with mean age of 51 years and 53 years in the BHR and THA cohorts (p = 0.009).
- No significant differences between both cohorts for the preoperative pain, function and total HHS (p = 0.528; 0.909; 0.716).
- BHR cohort had significantly better postoperative function and total HHS at all points of the 5-year study, but not for the postoperative pain score. (Figure 1, 2 & 3).

DISCUSSION

- Over the last few years, surgeons have lower threshold for performing revision surgery in female patients with BHR. This could contribute to the high revision rate.
- Poorer survivorship is also likely due to the presentation of female cohort only in this study.
- Anecdotally, the vast majority of female patients who do not require revision were happy with BHR. This is somewhat at odds with the recent reputation of the procedure.
- Our study is not a recommendation to still offer BHR to female patients, but rather to inject a note of realism into the debate.
- There are implications for future implant development in that these results do validate resurfacing as a functionally valuable option for active patients. However, there is no doubt that it comes at the cost of an increased risk of revision.

CONCLUSION

- BHR can give significantly better functional outcomes than THA, but also associated with significant revision risk. This may be acceptable to some active patients.