Evidence in focus

Publication summary

Oxblom A, et al. *Acta Orthop* (2019)*

smith&nephew

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The BIRMINGHAM HIP◇ Resurfacing (BHR◇) System results in better patient-reported outcomes (PROs) for hip function compared to conventional total hip arthroplasty (THA) at 7 years follow-up

Patients receiving BHR reported significantly higher scores for activities of daily living (ADLs) and sport/recreation

Study overview

- A matched cohort study of procedures recorded in the Swedish Hip Arthroplasty Register, comparing metal-on-metal hip resurfacing with BHR to conventional THA
  - 363 patients with BHR performed between 2002–2013, matched 1:1 with a control group of 363 patients with a conventional THA (mean age at primary operation, 52 and 51 years, respectively)
- Patients completed PRO measure questionnaires at a mean post-operative follow-up of 7 years: the Hip Disability and Osteoarthritis Outcome Score (HOOS), the EuroQol – 5 Dimensions (EQ-5D), and visual analogue scales (VAS) for hip pain and satisfaction
- Of the 726 patients selected for the study, 569 returned questionnaires with complete responses

Key results

- Compared to conventional THA, BHR resulted in significantly higher unadjusted HOOS subscale scores (indicating a better outcome) for ADLs, sport/recreation, and pain (Figure)
- There was no significant difference between BHR and THA for HOOS quality of life (QoL) and symptoms, EQ-5D, and VAS hip pain and satisfaction unadjusted scores
- After adjusting for confounders (age, sex, pre-operative EQ-5D index and time from surgery), HOOS ADL and sport/recreation subscale scores remained significantly improved with BHR versus THA

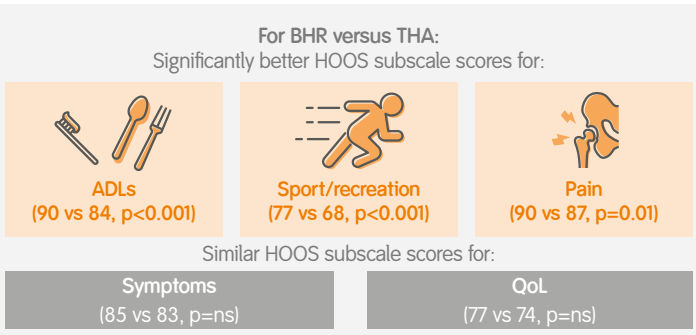

Figure. Unadjusted HOOS subscale score outcomes for BHR versus THA at 7 years follow-up. A higher score indicates a better outcome.

Conclusion

BHR results in better functional outcome scores for the ADL and sport/recreation HOOS subscales compared to conventional THA at mid-term follow-up (7 years). All other adjusted outcome measures were similar between the two groups.

Study citation

*Oxblom A, Hedlund H, Nemes S, Brismar H, Felländer-Tsai L, Rolfson O. Patient-reported outcomes in hip resurfacing versus conventional total hip arthroplasty: a register-based matched cohort study of 726 patients. *Acta Orthop*. 2019;18:1–10.

Available at: Acta Orthopaedica

These study results are supported by evidence from mixed male/female populations, but the implant is no longer available for use on the female population. The BHR System is contraindicated for use in female patients. For additional information on the device, indications for use, contraindications, warnings and precautions, please consult the device Instructions for Use (IFU).

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