

# AB072. SOH23ABS\_151. Bilateral total hip arthroplasty performed simultaneously or in two stages: a systematic review and meta-analysis

# Tom Doyle, Martin Davey, Colin Murphy

Department of Orthopaedics and Trauma, Galway University Hospital, Galway, Ireland

**Background:** The purpose of this study was to systematically review the literature to assess the clinical outcomes reported in trials which compare bilateral total hip arthropathy performed simultaneously (SIM) under a single anaesthetic *vs.* those performed at staged intervals (STA).

**Methods:** Two independent reviewers performed a literature search of three databases using the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines. Studies reporting clinical outcomes from direct comparison between SIM *vs.* STA were considered for inclusion. Meta-analysis was performed on clinical outcomes using RevMan, with a P value <0.05 considered significant.

**Results:** The search found 36 studies which satisfied the inclusion criteria including: 104,929 patients (52% males), with average age of  $55.9\pm7.2$  years and mean follow-up of  $35.5\pm28.4$  months. There were a total of 29,467 (28%) who underwent SIM and 75,462 (72%) who underwent STA. This review found no significant difference between the approaches in the rate of infection, dislocation, revision, deep vein thrombosis or mortality. However, there was a significant increase in the rate of blood transfusions (P<0.0001) and venous thromboembolism (P=0.0001). Furthermore, SIMTHA was associated with

a significant reduction in mean overall length of stay of  $5\pm4$  days and a mean reduction in total cost of  $22\%\pm11\%$ .

**Conclusions:** SIM is a safe alternative to STA, with similar complications rates. SIM offers benefit to patients and the healthcare system via shorter operations and inpatient admissions. This review endorses wider application of SIMTHA in appropriate patients.

**Keywords:** Total hip arthroplasty; bilateral; same-day; staged; systematic review

## **Acknowledgments**

Funding: None.

### Footnote

*Conflicts of Interest:* The authors have no conflicts of interest to declare.

*Ethical Statement:* The authors are accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

*Open Access Statement:* This is an Open Access article distributed in accordance with the Creative Commons Attribution-NonCommercial-NoDerivs 4.0 International License (CC BY-NC-ND 4.0), which permits the non-commercial replication and distribution of the article with the strict proviso that no changes or edits are made and the original work is properly cited (including links to both the formal publication through the relevant DOI and the license). See: https://creativecommons.org/licenses/by-nc-nd/4.0/.

#### doi: 10.21037/map-23-ab072

**Cite this abstract as:** Doyle T, Davey M, Murphy C. AB072. SOH23ABS\_151. Bilateral total hip arthroplasty performed simultaneously or in two stages: a systematic review and metaanalysis. Mesentery Peritoneum 2023;7:AB072.