

OSTEOARTHRITIS

Does metal-on-metal hip resurfacing confer a survival advantage over total hip replacement?

Understanding the long-term risks of different types of hip prostheses is vital to the treatment of patients with osteoarthritis. Information about such outcomes is scarce, but particular concern has been raised about the safety of metal-on-metal hip resurfacing devices. A retrospective study of patients admitted to English hospitals between April 1999 and March 2012 now reveals that long-term mortality was lower in those who received primary hip resurfacing compared with those who received primary total hip replacement (cemented or uncemented).

Because hip resurfacing was developed for use in young, active patients, the investigators accounted for confounding by indication by use of propensity score matching methods. Accordingly, 7,437 patients who received hip resurfacing were matched to 22,311 who underwent cemented total hip replacement; likewise, 8,101 who received hip resurfacing

were matched to 24,303 who received uncemented total hip replacement. Very old patients and those who had complex total hip replacements were excluded from these matched populations.

All-cause mortality rates at 10 years were 3.6% for metal-on-metal hip resurfacing versus 6.1% for cemented total hip replacement, and 3.0% for metal-on-metal hip resurfacing versus 4.1% for uncemented total hip replacement.

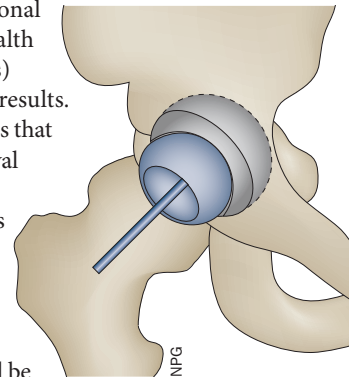
In this population of young and relatively healthy patients, the results demonstrate a long-term survival advantage for those who underwent hip resurfacing in comparison with both cemented (HR 0.51, 95% CI 0.45–0.59) and uncemented (HR 0.55, 95% CI 0.47–0.65) total hip replacements.

This advantage persisted after adjustment for a number of variables, including age, sex and year of operation. However, given the observational nature

of the study, additional factors (such as health and lifestyle effects) could mitigate the results.

The authors stress that the observed survival advantage of hip resurfacing requires confirmation in randomized controlled trials or additional cohorts, and should be balanced against the known complications of this procedure.

Sarah Onuora



Original article Kendal, A. R. *et al.* Mortality rates at 10 years after metal-on-metal hip resurfacing compared with total hip replacement in England: retrospective cohort analysis of hospital episode statistics. *BMJ* 347, f6549 (2013)