

## Hip Resurfacing Makes for Easier Surgery with Better Functional Outcomes at Time of Revision: A Case Controlled Study

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**Abstract :** Revision total hip arthroplasty (THA) is known to be a challenging procedure with potential for poor outcomes. Due to its lack of metaphyseal encroachment, hip resurfacing arthroplasty (HRA) is classified as a bone conserving procedure. Although the literature postulates that this is an advantage at time of revision surgery, there is no evidence to either support or refute this claim. We identified 129 hips that had undergone HRA and 129 controls undergoing first revision THA. We recorded the clinical assessment and survivorship of implants in a multi-surgeon, single centre, retrospective case control series for both arms. These were matched for age and sex. Data collected included demographics, indications for surgery, Oxford Hip Score (OHS), length of surgery, length of hospital stay, blood transfusion, implant complexity and further surgical procedures. Significance was taken as  $p < 0.05$ . Mean follow up was 7.5 years (1 to 15). There was a significant 6 point difference in postoperative OHS in favour of the revision resurfacing group ( $p=0.0001$ ). The revision HRA group recorded 48 minutes less length of surgery ( $p<0.0001$ ), 2 days less in length of hospital stay ( $p=0.018$ ), a reduced need for blood transfusion ( $p=0.0001$ ), a need for less complexity in revision implants ( $p=0.001$ ) and a reduced probability of further surgery being required ( $P=0.003$ ). Whilst we acknowledge the limitations of this study our results suggest that, in contrast to THA, the bone conservation element of HRA may make for a less traumatic revision procedure with better functional outcomes. Use of HRA has seen a dramatic decline as a result of concerns regarding metallosis. However, this information remains of relevance when counselling young active patients about their arthroplasty options and may become pertinent in the future if the promise of ceramic hip resurfacing is ever realized.

**Keywords :** hip resurfacing, metallosis, revision surgery, total hip arthroplasty

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