Ninety-day reoperation following hip resurfacing arthroplasty

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INTRODUCTION: Hip resurfacing arthroplasty (HRA) is an excellent option for the young patient with end stage osteoarthritis. Metal on metal bearing has the longest track record for HRA, and new bearings such as ceramic on ceramic and highly cross-linked polyethylene have been introduced to minimize the risk of adverse tissue reaction. Although the long-term outcome of HRA is well known, the risk of early re-operation is quite limited. We sought to review the rate of early postoperative complications (within 90 days) requiring re-operation, in patients who have undergone hip resurfacing, as well as implant survivorship following early revision.

METHODS: A retrospective review of consecutive patients at our institution was performed between 2002-2021. The vast majority of patients received the Microport Conserve Plus implant, and a small cohort getting the Corin CORMET implant as part of an RCT (2.4%). Surgical approach included direct anterior (50.6%), posterolateral (47.7%), and direct lateral (2.4%). The vast majority of cases were performed by two high volume HRA surgeons. All visits to the emergency department (ED) within 90 days of index surgery were included to evaluate the rate of reoperation. A chart review was conducted to assess the morbidity associated with early revision surgery, and implant survivorship following revision.

RESULTS SECTION: 1875 HRA were performed within the study period (90% male, age 50.3 years [19-74]). 231 unique ED encounters within 90 days of index surgery occurred at our institution. 29 patients (1.5%) underwent reoperation or related procedures for their hip. 13 patients underwent irrigation and debridement for infection (10) or postoperative hematoma (3). One patient sustained a periprosthetic intertrochanteric femur fracture treated with open reduction internal fixation. 14 patients (0.7%) required a component revision procedure for periprosthetic femoral neck fractures (9/1875; 0.5%)), acetabular component loosening (4/1875; 0.2%), and implant mismatch requiring revision (1/1875; 0.05%). One patient was treated with a closed reduction for early postop dislocation. 10/14 patients were revised to a total hip arthroplasty (THA); 4/14 underwent acetabular component revision. 93% of patients were revised through the same surgical approach. Subsequent surgery was performed in 5/14 (36%) patients for infection (4) or pseudotumor (1); two had late conversions to THA. The remaining patients have excellent Implant survivorship following initial revision at most recent follow up (mean: 70.4 months [0.5-186]).

DISCUSSION: This review establishes the short-term safety of HRA. The overall rate of early postoperative complications within 90 days requiring surgery is marginal. HRA is a safe procedure in the hands of high-volume surgeons.

SIGNIFICANCE/CLINICAL RELEVANCE: This study assesses the safety and efficacy of performing and hip resurfacing arthroplasty.

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