

Functional Status and Complications following Hip Resection Arthroplasty as Definitive Treatment

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INTRODUCTION:

Hip resection arthroplasty (HRA) as definitive treatment is infrequently utilized to control infection and alleviate pain when other options have been exhausted. This single-institution study reports indications, postoperative complications, preoperative and postoperative ambulatory status, and pain scores following HRA. We hypothesize that definitive HRA will eradicate the majority of infections, significantly increase the number of ambulatory patients, and decrease pain scores compared to preoperative baseline.

METHODS:

This is a retrospective study of hip resections performed between 2002-2022. Patients who underwent reimplantation were excluded. Sixty-five patients remained, of which 46 were infectious and 19 non-infectious (nonunion, AVN, etc.) etiologies. Primary outcome measures included ambulatory status, pain scores, and functional status measured with modified Harris Hip Score (mHHS). Ambulation was defined as any form of walking greater than or equal to assistance with a walker. Patient demographics, perioperative metrics, and postoperative complications were recorded.

RESULTS:

The average follow up was 17.9 months. Of the 46 infections, 69.6% (32/46) were eradicated by HRA alone. Eight of the remaining 14 persistently infected hips required an average of 2 I&Ds to eventually control infection, resulting in 87.0% (40/46) of infections being eradicated in totality. Prior to surgery, only 6.2% of patients could ambulate, and average VAS score was 6. Following surgery, 27.7% of patients could ambulate and average VAS score improved to 3 (p=0.039, p=0.0018, respectively). The average postoperative mHHS was 40±17. Total complication rate was 70.8%, with 58.5% and 38.5% of patients experiencing minor and major complications, respectively. Overall reoperation and mortality rates were 20.0% and 13.8%, respectively.

DISCUSSION AND CONCLUSION:

HRA as definitive treatment was effective at controlling infection and decreasing pain compared to baseline. The procedure also significantly restored ambulatory capacity in debilitated patients with limited mobility at baseline, though most patients remained non-ambulatory. These benefits must be weighed with the significant complications and mortality rates following HRA as definitive treatment.