## Safety and Efficacy of Outpatient Total Hip Arthroplasty and Obesity

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INTRODUCTION: As outpatient total joint replacement continues to increase significantly, safety and efficacy must be maintained. The purpose of our study is to examine the outcome of patients undergoing outpatient total hip arthroplasty with a BMI >35.

METHODS: A prospective database was used to identify 381 total hip arthroplasty outpatients. Using case-control matching based on age, sex, and ASA, 51 patients were matched to outpatients having a BMI< 35 kg/m2. In a subsequent analysis, the same cohort was matched to inpatients with BMI >35 kg/m2. For each cohort, readmission in 90 days, return to ER in 90 days, adverse events, reoperations were recorded.

RESULTS SECTION: The severe obesity group included patients with BMI [BMI mean of 40 (35-55), age mean of 61 (38-78)]. The matched cohorts included patients with BMI< 35 kg/m2 [BMI mean of 27 (17-34), age mean 61 (33-78)] and inpatients with BMI  $\geq$  35 kg/m2 [BMI mean of 40 (35-55), age mean of 62 (34-77). Between the two outpatient cohorts, the rate of adverse events was significantly higher in BMI  $\geq$  35; 15.69% compared to 1.96% (p=0.015) and the rate of reoperation was also significantly higher in BMI  $\geq$  35; 5 cases compared to 0 (p= 0.022). Readmissions and return to ER in 90 days did not differ between groups (p=0.299 and p=0.092 respectively). There was no significant difference for all studied outcomes between the outpatient and inpatients cohorts with BMI  $\geq$  35 kg/m2.

DISCUSSION: The outpatient severely obese cohort had higher rates of adverse events and reoperations compared to the patients with BMI lower than 35 but there was no difference with a matched cohort of inpatients. Caution must always be taken to identify the ideal candidates for outpatient surgery. However, BMI should not be used a sole variable for deciding if the patient should be admitted or not.

SIGNIFICANCE/CLINICAL RELEVANCE: The analysis completed helps define the safety and efficacy of performing total hip arthroplasty on a patient with a BMI higher than 35 as an Outpatient.

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