Should Patients with BMI Over 40 Be Prohibited From THA and TKA in an Ambulatory Surgery Center?

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INTRODUCTION: The migration of total hip and knee arthroplasty (THA, TKA) from the hospital into the ambulatory surgery centers (ASC) is continuing. However, patient selection criteria for the ASC setting remain vague and many obese patients are prohibited from the ASC for unclear and arbitrary reasons. This study's purpose was to evaluate safety and 90-day readmission for obese patients in an ASC compared to those performed in a hospital setting.

METHODS: 3,881 primary THAs and TKAs performed in the ASC and hospital setting were retrospectively reviewed. 1,189 (31%) patients were discharged on the same day of surgery (809 ASC, 380 hospital). 10% (81/809) and 17% (65/380) of patients had a BMI ≥40 in the ASC and hospital settings, respectively. Demographics, covariates, and readmissions within 90-days of surgery were queried from patient charts within a statewide healthcare system. Statistical analysis was performed at a significance level of 0.05.

RESULTS: Overall, the all-cause readmission rate within 90-days of surgery for same-day discharge patients was 2.2% (26 of 1,189). Groups stratified by location and BMI differed by demographics and covariates ($P \leq 0.021$); however those covariates did not affect readmission rates ($P \geq 0.427$) with numbers available. Interestingly, the readmission rate for patients with BMI ≥40 performed in the ASC was the lowest (1.2%) followed by BMI ≥40 performed in the hospital (1.5%), patients with BMI <40 in the ASC (2.2%), and those with BMI <40 performed in the hospital (2.5%).

DISCUSSION AND CONCLUSION: These study results refute the contention that obese patients should be prohibited from having a hip or knee arthroplasty in the ASC based on a BMI $\geq$ 40 alone. 90-day readmissions did not differ by location or BMI cutoff ≥40. With appropriate perioperative optimization, obese patients should not be restricted from access to THA and TKA in an ASC, or a hospital, when appropriately indicated.