DISCLOSURE OF RELEVANT FINANCIAL RELATIONSHIPS: Oluwateniola Brown: Nothing to disclose; Szu-In Lim: Nothing to disclose; Margaret G. Mueller: Nothing to disclose; Tsung Mou: Nothing to disclose; Shawn Jones: Nothing to disclose; Edward Tanner: AstraZenica, Speaker, Honorarium; Johnson & Johnson, Consulting, Honorarium; Angela Chaudhari: Johnson and Johnson, Women in surgery advisory board, Honorarium; Kimberly Kenton: Ethicon, Expert Witness, Honorarium.

27 How does obesity class correlate with postoperative complications following benign hysterectomy?

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OBJECTIVES: To determine if obesity is associated with 30-day postoperative adverse events in individuals undergoing hysterectomy for benign indication.

MATERIALS AND METHODS: A retrospective cohort analysis was performed through the National Surgical Quality Improvement Program (NSQIP) from 2015 through 2019. Patients who underwent hysterectomy for benign indications were identified by Current Procedural Terminology (CPT) codes. Patient characteristics and perioperative data were abstracted. Patients were stratified into groups by body mass index (BMI): normal (<25 kg/m²), overweight (25-29.9 kg/m²), Class I obesity (30-34.9 kg/m²), Class II obesity (35-39.9 kg/m²) and Class III obesity (>40 kg/m²). The primary outcome was any 30-day postoperative complication; secondary outcomes included genitourinary (GU) tract injury, readmission, and reoperation. The overall cohort was characterized using descriptive statistics, and differences across BMI groups were calculated, and multivariable logistic regression was used to determine if BMI category was associated with postoperative complications while controlling for potential confounders.

RESULTS: A total of 106,137 hysterectomies were analyzed. The mean age was 48 (standard deviation [SD] ±11). The majority was white (63%). The mean BMI was 32 (SD ±8) kg/m²; 19% had a normal BMI, 28% were overweight, and 53% were obese. In the obese population, 23% of the cohort had Class I obesity, 15% had Class II obesity, and 15% had Class III obesity. The most common route of hysterectomy was laparoscopic (62%), followed by abdominal (21%) and vaginal (17%). The mean uterine weight was 250 (SD ±408) g; the mean operative time was 136 (SD ±64) minutes. The rate of any 30-day postoperative complication was 9%. GU tract injury occurred in 0.3% (n = 229) of cases. Readmission and reoperation rates were 3% and 1.4%, respectively. Significant differences were noted across patient weight groups in terms of any 30-day postoperative complication (p <0.001). On multivariable logistic regression controlling for age, ASA class, smoking, type of hysterectomy, operative time, concurrent procedures, uterine weight and presence of endometriosis, overweight and obesity class I and II were associated with a decreased odds of complication compared to normal weight; class III obesity was not associated with complications.

CONCLUSION: Compared with patients of normal weight, overweight patients and those with Class I and II obesity have a decreased likelihood of experiencing any postoperative complication in the 30-days following hysterectomy for benign indications.