Pelvic Floor Symptoms Before and After Bariatric Surgery
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BACKGROUND
• Currently in the United States, greater than 50% of women are classified as being overweight (body mass index (BMI) ≥25 kg/m²) or obese (BMI ≥30 kg/m²)1-4.
• Obesity is a known risk factor for pelvic floor disorders including urinary incontinence5-8, defecatory dysfunction9, and pelvic organ prolapse (POP)10-12.
• The pathophysiology relating these disorders to obesity is multifactorial and specifically linked to issues of intra-abdominal pressure and other obesity-related conditions including abnormal nerve conduction, diabetes, and intervertebral disc herniation13-15.

OBJECTIVE
• To determine whether there was a difference in the subjective reporting of pelvic floor symptoms by women after a significant weight loss had occurred during and after bariatric surgery.
• Symptoms were evaluated before and after surgery using the PFDI-20 and PFIQ-7.

METHODS

Patient Selection and Surgical Intervention
• Inclusion criteria: female, >18 years, fulfill the National Institute of Health criteria for bariatric surgery (BMI ≥40 kg/m² or BMI 25-30 kg/m² with at least two co-morbidities, and has attempted to lose weight in the past).
• 2 weeks before surgery: patient recruited/interviewed for study; height, weight, and BMI recorded; demographics, co-morbidities, and PFDI-20 and PFIQ-7 completed.
• Surgery: laparoscopic gastric bypass or laparoscopic sleeve gastrectomy.

Patient Follow-Up
• 6 and 12 months after surgery: weight and BMI recorded; PFDI-20 and PFIQ-7 repeated.

Statistical Analyses
• PFDI-20 score used to calculate sample size.
• The minimum clinically important difference is 45 points (15%) or more in the overall summary score of the PFDI-20.
• A power of 0.8 was used with a significance level of 0.05.
• Using mean decrease of 45 points at 6 months post-surgery would be considered significant and assuming the standard deviation of change would be 100, 55 subjects would provide a 90% power to detect the difference with a significance level of 0.05.
• Continuous variables summarized using means and standard deviations, and categorical variables summarized using frequencies and percentages.
• BMI described as means (± standard deviations) and compared between baseline and 6 and 12 months using Student's t-test (P<0.05 considered statistically significant).

RESULTS
• Patients showed a significant reduction in weight and BMI at 6 and 12 months after surgery.
• The prevalence of symptoms was high (>80%) without any significant difference seen before or after surgery (P>0.05).
• Within each of the PFDI-20 subscales, bladder and bowel symptoms appeared to be more prevalent than POP symptoms.
• The prevalence of impact on quality of life was significantly lower at 6 months after surgery (66% versus 34%, P=0.004) and continued at 12 months after surgery (30%).
• Within the subscales of the PFDI-20, the prevalence of impact on quality of life was higher for bowel and bladder symptoms than POP symptoms.
• Baseline PFDI-20 and, in particular, PFIQ-7 total scores ranging from 0 to 100. Scores were recalculated using the 6 months and 12 months follow-up data from 0 to 100. Scores were used to identify the Department of Health and Human Services (USDHHS) physical activity guidelines for healthy Americans.

CONCLUSION
• Significant weight loss seen at 6 and 12 months after bariatric surgery does not have a significant effect on pelvic floor symptom prevalence.
• Although, degree of bother from these symptoms and their impact on quality of life was significantly improved as demonstrated by the PFDI-20 and PFIQ-7 scores, respectively.

REFERENCES