

## **VENUS VERSUS MARS - CLINICAL CHARACTERISTICS OF MORBIDLY OBESE SURGICAL PATIENTS VARY SIGNIFICANTLY BETWEEN WOMEN AND MEN**

Malinda Lyon, DO and Gus J Slotman, MD

Department of Surgery, Inspira Health Network

Vineland, NJ

**Introduction:** The obesity epidemic requires every surgeon to manage morbidly obese patients. Every insight helps optimize care of these medically fragile individuals. Variation by sex in weight-related conditions is not well-defined. The objective of this study was to identify clinical differences between obese women and men pre-operative for sleeve gastrectomy.

**Methods:** Data from 8,966 patients in the Surgical Review Corporation's BOLD database who were about to undergo sleeve gastrectomy was analyzed in two groups: Females (n=6685) and Males (n=2281). ANOVA compared age, weight, and Body Mass Index (BMI). Chi-squared assessed dichotomous variable distribution.

**Results:** Female/Male weight (125+-25 /160+-34), BMI (46+-9/50+-10), age (45+-11/47+-12), race (Caucasian 74/78%, African-American 12/6%, Hispanic 8.8/10.3%) and health insurance (Medicaid 5.3/3.6%, Medicare 2.0/2.5%, Private 70.8/72.2%) varied significantly ( $p<0.0001$ ). Men suffered 15 weight-related medical problems more frequently than women (abdominal hernia, angina, congestive heart failure, diabetes mellitus, gout, hypertension, ischemic heart disease, dyslipidemia, obesity hypoventilation syndrome, and obstructive sleep apnea, all  $p<0.0001$ , plus back pain, DVT/PE, impaired functional status, and lower extremity edema,  $p<0.05$ ). In addition to female-specific menstrual irregularities and polycystic ovarian disease, women were affected more often by 9 co-morbidities (asthma, cholelithiasis, mental health diagnosis, depression, fibromyalgia, GERD, stress urinary incontinence, pseudotumor cerebri, and psychological impairment, all  $p<0.001$ ). Alcohol consumption (38%/34%,  $p<0.001$ ), tobacco abuse (9%/7%,  $p<0.05$ ), and unemployment (16%/14%,  $p<0.0001$ ) were higher among men. Abdominal panniculitis, liver disease, musculoskeletal pain, peripheral vascular disease, pulmonary hypertension, and substance abuse did not vary by sex.

**Conclusions:** Compared with women, morbidly obese men seeking sleeve gastrectomy were older, heavier, smoked and drank more, and carried more co-morbidities, particularly functional disability and serious cardio-pulmonary/endocrine/metabolic issues. Cholelithiasis, GERD, and neuro/psychological problems dominated among women. Extrapolated to the overall surgical population, this advance knowledge may give surgeons heightened index of suspicion for obese patients that can improve operative outcomes.