FEMALE VERSUS MALE MORBIDLY OBESE SURGICAL PATIENTS VARY SIGNIFICANTLY IN PRE-OPERATIVE CLINICAL CHARACTERISTCS: ANALYSIS OF 67,514 BARIATRIC SURGERY WOMEN AND MEN

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Introduction: While more women than men undergo bariatric surgery, differences between the sexes in obesity-related pre-operative clinical conditions have not been investigated. The objective of this study was to identify variations in age, BMI, and the incidence of obesity co-morbidities between morbidly obese women and men.

Methods and Procedures: Pre-operative clinical data on 53,292 women and 14, 222 men in the Surgical Review Corporation's BOLD database who underwent adjustable gastric band (AGB) was examined retrospectively. Female versus male age and BMI, race, insurance, and the frequency of major obesity co-morbidities were compared by analysis of variance and the Chi-squared equation.

Results: Female/male age (45.2+-12/48.2+-12; $p<0.001$), BMI (44.6+-7/46.2+-7; $p<0.0001$), race (African-American 12.4%/6.8%, Caucasian 73.5%/78.3%, $p<0.001$), and health insurance (Medicaid 3.1%/1.6%, Medicare 7.1%/9.9%; $p<0.0001$) varied significantly. Obesity co-morbidities (%) are detailed in the Table. Overall, females carried 12 weight-related illnesses more frequently than did males (abdominal panniculitis, cholelithiasis, GERD, stress urinary incontinence, asthma, back pain, fibromyalgia, pseudotumor cerebri, mental health diagnosis, depression, and psychological impairment – $p<0.0001$ – and lower extremity edema – $p<0.01$). Males had higher incidences of 18 obesity co-morbidities, compared with females (abdominal hernia, liver disease, obesity hypoventilation syndrome, obstructive sleep apnea, angina, hypertension, CHF, ischemic heart disease, peripheral vascular disease, dyslipidemia, diabetes, gout, impaired functional status, alcohol use, tobacco use, substance abuse, and unemployment – $p<0.0001$ – and DVT-PE – $p<0.01$). Pulmonary hypertension and musculoskeletal pain did not vary female/male.

Conclusions: The pre-operative clinical characteristics of obese women and men varied significantly. Women were more frequently African-American and on Medicaid while men were more often Caucasian and on Medicare. Before AGB, compared with women, men were older, had higher BMI, used alcohol, drugs, and tobacco more frequently, and had higher rates of cardiovascular pathology, obesity hypoventilation syndrome and obstructive sleep apnea, diabetes, gout, abdominal hernia, liver disease, and impaired functional status. Among women, asthma, cholelithiasis, stress urinary incontinence, abdominal panniculitis, and mental health issues/dysfunction were more frequent than for men. These findings could aid care of AGB patients. Although AGB patients were self-selected, significant variations by sex can be applied to other obese individuals. Since all surgeons now operate on morbidly obese patients, the advance clinical knowledge reported here can increase clinical acumen

and may facilitate anticipatory management. Understanding the weight-related characteristics of obese men and women thus may improve outcomes for all procedures that must be performed on the morbidly obese.