

# **BATTLE OF THE SUPER OBESE SEXES: FEMALE VERSUS MALE VARIATION IN PRE-OPERATIVE CLINICAL CHARACTERISTICS AMONG 1,673 SURGICAL PATIENTS UNDERGOING BILIO-PANCREATIC BYPASS/DUODENAL SWITCH (BPD/DS)**

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**INTRODUCTION:** The objective of this study was to identify variation in weight and demographics in the distribution of pre-operative clinical characteristics between super obese females compared with males who were about to undergo BPD/DS surgery. As the American obesity epidemic increases, morbidly obese patients have become integral to every surgical practice; they are no longer limited to bariatric surgeons. Every clinical insight helps the surgeon to optimize outcomes when operating on and managing these medically fragile individuals. In this context, however, clinically and statistically significant differences in demographics, body mass, and in the distribution of weight-related medical problems between super-obese women and men are unknown.

**METHODS:** Pre-operative data from 1,673 Surgical Review Corporation BOLD database patients who were planning to undergo BPD/DS were analyzed retrospectively in two groups: Female (n=1217) and Male (n=456). Statistical analyses: ANOVA compared age, weight, and Body Mass Index (BMI) and Chi-squared assessed dichotomous variable distribution.

**RESULTS:** Pre-operative female/male weight (138 +/- 27, 174 +/- 34 kg), BMI (51 +/- 9, 53 +/- 10) and age (45 +/- 11, 46 +/- 11) varied by sex (p<0.05), as did Medicaid/Medicare/Private/Self-Pay insurance status (female % 9.7/9.6/77/4.1 and male % 5.4/11.5/81/2.5. p<0.05). Female abdominal panniculitis, asthma, cholelithiasis, GERD, stress urinary incontinence, depression, fibromyalgia (p<0.01) and mental health diagnosis (p<0.05) (8 comorbidities) were higher than those characteristics among men. Male alcohol use, congestive heart failure, hypertension, ischemic heart disease, dyslipidemia, obstructive sleep apnea, diabetes, gout (p<0.01), liver disease and unemployment (p<0.05) (10 comorbidities) were higher than female. Race, abdominal hernia, angina, back pain, DVT/PE, impaired functional status, lower extremity edema, musculoskeletal pain, obesity hypoventilation syndrome, peripheral vascular disease, pseudotumor cerebri, psychomotor impairment, pulmonary hypertension, and substance/tobacco abuse did not vary by sex.

**CONCLUSIONS:** Among super-obese patients who were pre-operative for BPD/DS, demographics and clinical characteristics varied significantly by sex. Females suffered from higher rates of asthma, abdominal skin inflammation, hepatobiliary illnesses, and psychological issues including depression and fibromyalgia. Males were older, heavier, more often unemployed, drank more alcohol, suffered increased cardiac dysfunction, liver disease, obstructive sleep apnea, diabetes and

other endocrine/metabolic co-morbidities. The advanced clinical knowledge reported here may help to optimize pre-operative comorbidities prior to surgical intervention in the effort to decrease peri-operative morbidity and mortality in super-obese surgical patients.