Clinical Characteristics and Outcomes Vary by Sex in Open Roux-en-Y Gastric Bypass

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Introduction: Today, open Roux-en-Y gastric bypass (ORYGB) is reserved for patients too obese for laparoscopic RYGB or with massive intra-abdominal scarring. Every clinical insight helps with these fragile individuals. Variation pre-operative and in outcomes by sex in ORYGB is unknown.

Objective: Identify variation by sex in clinical characteristics and outcomes of ORYGB.

Methods: Data from 5389 ORYGB patients in the Surgical Review Corporation's BOLD database (demographics, weight, BMI, and 31 co-morbidities), pre-operative and through 24 months, was analyzed retrospectively in two groups: Women (n=4093) and Men (n=1296). Statistics: ANOVA for continuous variables; general linear model modified for binomial distribution of dichotomous variables.

Results: Female/male age (45.6+-12/47+-11), %race (African-American 10/7. Caucasian 68/75, Hispanic 13/9), %Medicaid (10/6), %unemployment (27/31), (weight (132+-28/169+-43kg baseline; 87+-10/110+-23kg 12 months; 83+-106kg 24 months) and baseline BMI (49+-9/53+-11), varied ($p<0.01$). Pre-operative female asthma, cholelithiasis, fibromyalgia, back pain, pseudotumor cerebri, stress incontinence, GERD, mental health diagnosis, depression, and psychological impairment increased versus men; male hernia, angina, CHF, DVT/PE, ischemic heart disease, hypertension, pulmonary hypertension, sleep apnea, obesity hypoventilation, diabetes, dyslipidemia, gout, leg edema, impaired functional status, alcohol and tobacco use were higher. At 24 months, only hernia, cholelithiasis, GERD, stress incontinence, gout, depression, angina, asthma, alcohol/tobacco varied by sex.

Conclusion: Weight, BMI and 26/31 obesity co-morbidities vary by sex pre-ORYGB. Cardiopulmonary and endocrine/metabolic conditions dominate men, with increased alcohol/tobacco. Abdominal and psychological issues affect women. Female/male differences in the most serious weight-related conditions resolve by 24 months. This advance knowledge may facilitate patient selection/management of medically/surgically complex ORYGB patients.