Clinical Characteristics of Super-Obese Female Surgical Patients Vary by Race: Analysis of 1,212 BOLD Database Patients.

Introduction

Obesity co-morbidities and their management have been described and are understood. However, clinically significant variations between racial groups in the distribution of weight-related medical problems and demographic data in superobese women have not been well established.

Objective

To evaluate variation by race in clinical characteristics, including weight-related co-morbidities and demographic data among superobese female patients.

Methods

Pre-operative data from 1,212 patients in the Surgical Review Corporation’s BOLD database who were about to undergo Biliopancreatic Diversion/Duodenal Switch (BPD/DS) was analyzed retrospectively in four groups: African-American (n=106), Caucasian (n=1,000), Hispanic (n=34) and Other (Pacific Islander, Native American, or >1 race listed in BOLD; n=72). Age, weight and Body Mass Index (BMI) were understood. However, clinically significant variations between racial groups in the clinically significant variations between racial groups in the obesity co-morbidities and their management have been described and are understood.

Results

Vary by Race: Analysis of 1,212 BOLD Database Patients.

Gastrointestinal & Hepatobiliary

African American Caucasian Hispanic Other P-value

Abdominal Hemia 11.32% (12/106) 11.1% (111/1000) 5.88% (2/34) 0% (0/72) 0.0342

Abdominal Skin Erosion 16.98% (18/106) 23.7% (237/1000) 38.24% (13/34) 4.17% (3/72) 0.0002

Cholelithiasis 14.15% (15/106) 27.4% (274/1000) 26.47% (9/34) 25% (18/72) 0.023

Gastroesophageal Reflux Disease 38.68% (41/106) 57.3% (573/1000) 52.94% (18/34) 41.67% (30/72) 0.0008

Liver Disease 2.83% (3/106) 5.8% (58/1000) 5.88% (2/34) 2.78% (2/72) 0.3157

Stress Urinary Incontinence 27.36% (29/106) 47.4% (474/1000) 44.12% (15/34) 48.61% (35/72) 0.0027

Endocrine

African American Caucasian Hispanic Other P-value

Glucose Metabolism 32.98% (34/106) 39.9% (399/1000) 50% (17/34) 29.17% (21/72) 0.0959

Gout 0.94% (1/106) 3.3% (33/1000) 0% (0/34) 0% (0/72) 0.2424

Irregular Menses 29.25% (31/106) 39.7% (397/1000) 26.47% (9/34) 6.94% (5/72) < 0.0001

Polycystic Ovarian Disease 5.66% (6/106) 11.9% (119/1000) 2.94% (1/34) 1.39% (1/72) 0.0086

Conclusions

Distribution of obesity co-morbidities varied significantly, both statistically and clinically, between African-American, Caucasian, Hispanic and Other race patients.

African Americans had the highest BMI, sleep apnea, alcohol use and abdominal hernia (n=3) and were lowest in dyslipidemia, pseudotumor cerebri and psychological impairment (n=8) and none were lowest.

Caucasians were eldest and had the highest incidences of obstructive sleep apnea, irregular menses, polycystic ovarian disease, cholelithiasis, GERD, mental health depression, and psychological impairment (n=8) and were lowest in none.

Hispanic pulmonary hypertension, dyslipidemia, abdominal panniculitis and pseudotumor cerebri were highest (n=4) and none were lowest.

Other pulmonary hypertension, obstructive sleep apnea, irregular menses, polycystic ovarian disease, abdominal hernia and panniculitis, mental health diagnosis, depression, psychological impairment and alcohol use were lowest. None were highest.

Caucasian superobese women carry the greatest number of weight-related medical problems, and, thus, the highest surgical risk. The Other group was healthiest, with African Americans and Hispanics in a median risk category.

This advance knowledge of clinical variation of superobese women by race may increase surgical index of suspicion in all specialties and possibly help improve outcomes.