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The Role of the Multidisciplinary Conference in the Evaluation of Bariatric Surgery Candidates with a High-Risk Psychiatric Profile

Esam Batayyah, MD, Gautam Sharma, MD, Ali Aminian, MD, Hector Romero-Talamas, MD, Andrea Zelisko, MD, Kathleen Ashton, PhD, Philip R. Schauer, MD, Stacy A. Brethauer, MD, and Leslie Heinberg, PhD

Background: Implementation of a multidisciplinary conference (MC) attended by medical, surgical, nutrition, bioethics, and psychology specialists may help identify treatment plans for bariatric surgery candidates with a high-risk psychiatric profile.
Methods: Data were assessed for all bariatric candidates evaluated by the MC in an academic center between January 2009 and December 2010.
Results: A total of 134 patients of 2798 patients assessed by four different psychologists were subsequently evaluated by the MC. The most frequent psychiatric diagnoses were mood disorders ($n=37$, 27.6%), anxiety disorders ($n=24$, 17.9%), and binge eating disorder ($n=19$, 14.1%). More than one psychiatric diagnosis was observed in 95.6% of the cohort. Substance abuse issues were present in 25% patients. Fifteen patients (11.2%) were eventually cleared and underwent surgery, 35 (26.1%) left the program before completing their requirements, and 84 patients (62.7%) were still working toward their individualized goals in the program. For those who underwent surgery, mean preoperative management duration was 221 days (range, 111–366) with an average of 11 preoperative psychiatric visits (range, 9–15).
Conclusions: Patients with a high-risk psychosocial profile seeking bariatric surgery require multiple visits and resources to determine their candidacy. The majority of these patients are either deemed ineligible for surgery or require prolonged preoperative evaluation.

Introduction

The prevalence of obesity is increasing in the United States and worldwide.[1] Guidelines have been established regarding how to determine appropriate bariatric surgery candidacy[2]; however, ineligibility criteria are discussed less frequently. Some contraindications for bariatric surgery include current substance dependence, severe depression, psychosis, inability to consent, suicidal ideation, untreated eating disorders, and severe or advanced illness. Extremes of age, cirrhosis, active inflammatory bowel disease, or recent history of malignancy are all relative contraindications and thus the decision to proceed with surgery should be individualized.

Efforts are often made to maximize medical support and eliminate relative contraindications for the patient to receive the benefits of surgery. Psychological issues that may pose a relative contraindication to surgery present major challenges for the bariatric surgery team. The goal of the multidisciplinary conference (MC) is to aid patients in overcoming these relative psychological or social contraindications whenever possible, so they can enjoy the metabolic and psychological benefits of the surgery. The aims of this study were to characterize the subset of patients with high-risk psychiatric and/or behavioral profiles for bariatric surgery and to determine their outcomes after evaluation by the MC.

Materials and Methods

Patients meeting National Institutes of Health (NIH) criteria[3] for bariatric surgery underwent complete preoperative evaluation according to the institutional protocol.[4] The MC consists of surgeons, nurses, internal medicine physicians, psychologists, bioethicists, and dieticians who meet twice a month at an academic bariatric center. Common reasons for referral to the MC committee include personality disorder,

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Bariatric and Metabolic Institute, Cleveland Clinic, Cleveland, Ohio.

intellectual disability, cognitive dysfunction, eating disorder, substance abuse, poorly controlled psychiatric disorders, psychotic symptoms, nonadherence, legal history, and supermorbid obesity. All recommendations and requirements were individualized according to the patient's needs (Fig. 1).

Data were collected retrospectively on all patients who were reviewed by the MC from 2009 to 2010. Data analysis was done for baseline characteristics, perioperative data, and follow-up outcomes, including age, sex, weight, height, body–mass index (BMI), duration of comprehensive management, type of surgical procedure, length of hospital stay, postoperative morbidity and mortality, and excess weight loss.

Results

Of 2798 patients seen by four psychologists, a total of 134 patients (104 females) with mean age of 47.5 years (range,

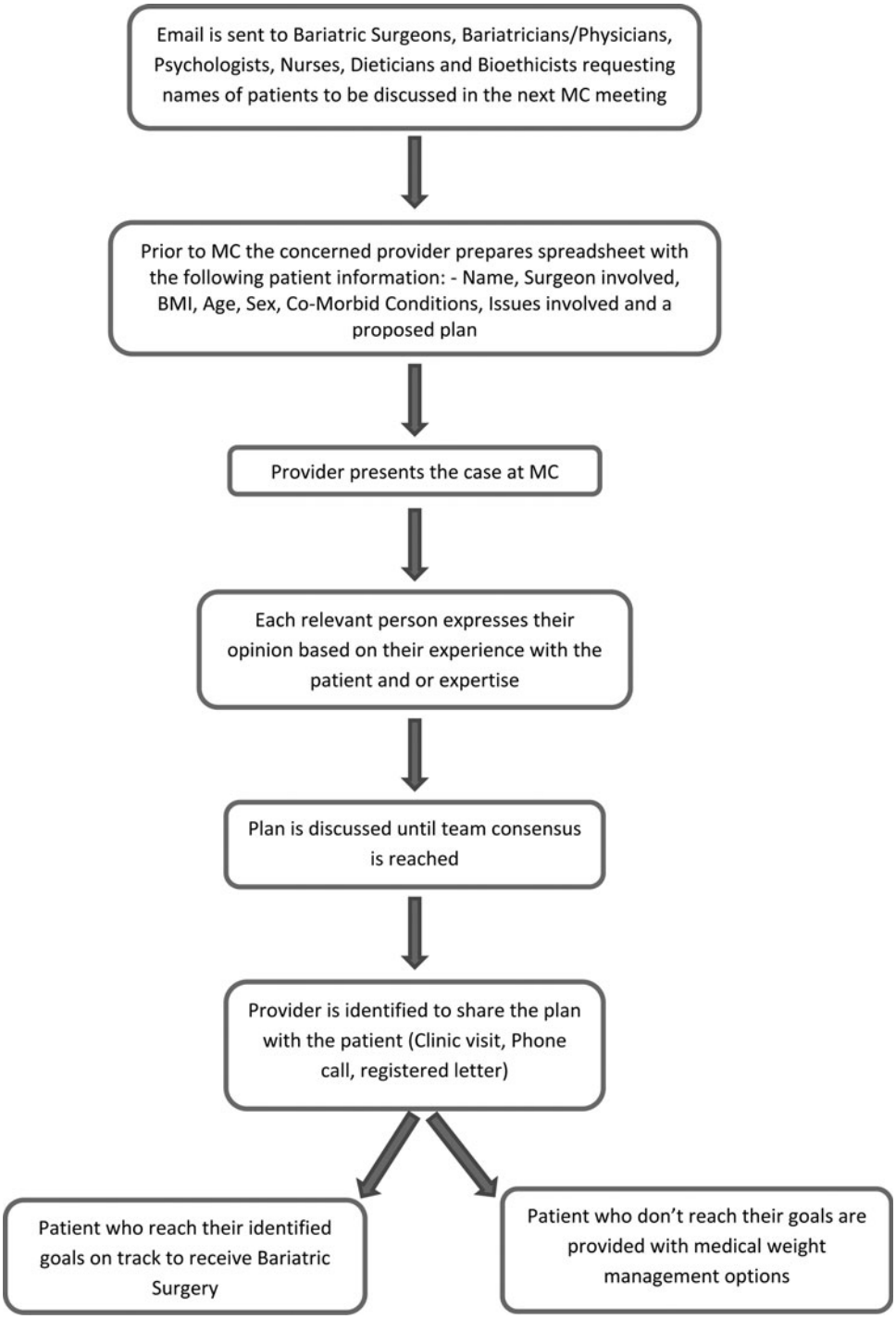

FIG. 1. Flowchart depicting functioning of multidisciplinary conference (MC).

18–85) and mean BMI of 56.8 kg/m^2 (35–98 kg/m^2) were selected for evaluation by the MC during a 2-year period.

The most frequent psychiatric diagnosis beyond psychological factors affecting a medical condition (obesity) was mood disorder, which was present in 37 (27.6%) patients (including 10 cases of bipolar disorder), followed by anxiety disorders in 24 patients (17.9%), binge eating disorder in 19 patients (14%), and psychotic disorders in 7 patients (5.1%). More than one psychiatric diagnosis was observed in 96% of the cohort. Substance abuse was present in 34 patients (25%), including alcohol abuse (16%), illicit drug use (2%), and tobacco dependency (14.1%). Cardiometabolic comorbidities among patients included type 2 diabetes (47%), hypertension (70%), and dyslipidemia (41%).

At the time of 1-year follow-up, only 15 patients (11.2%) were cleared for surgery, while 35 patients (26.1%) were not considered adequate candidates for surgery due to noncompliance with the treatment plan, significant uncontrolled psychiatric illness (e.g., frequent suicidal ideation, psychotic symptoms, self-harm), substance abuse (e.g., failed toxicology screens, unable to abstain from alcohol), or due to cognitive limitations (e.g., borderline intellectual functioning). Eighty-four patients (62.7%) were still working toward their individualized goals in the program (e.g., psychiatric stability, smoking cessation, abstinence from substance abuse).

Among the subset of patients who had surgery, mean preoperative preparation time was 221 days (range, 111–366) with an average of 10.93 (range, 9–15) preoperative psychology visits and an average of 4.53 (range, 2–8) visits to the dietician.

Laparoscopic Roux-en-Y gastric bypass (LRYGB) was the most common type of procedure ($n=9$), followed by laparoscopic sleeve gastrectomy (LSG, $n=3$), laparoscopic adjustable gastric banding (LAGB, $n=2$), and laparoscopic adjustable gastric banded plication (LAGBP, $n=1$). Mean length of postoperative hospital stay was 4.3 days (3–14 days). Early postoperative complications (<30 days) included wound infection ($n=1$) post-RYGB and anastomotic leak ($n=1$) requiring reoperation on 11th postoperative day following LAGBP. Readmission within 30 days was seen in two (13.3%) patients, primarily due to nonpsychiatric complications.

Among the late postoperative complications, bowel obstruction ($n=1$), pneumonia ($n=1$), and deep vein thrombosis ($n=1$) were reported. Among the five readmissions in the follow-up, one was related to psychiatric problems (major depression). Three patients were reoperated in the late postoperative period. Two of these three patients had a single reoperation, while the third was operated twice during his follow-up. Among the two who were operated once in their follow-up, one had his sleeve gastrectomy converted to RYGB at 2-year follow-up as stage two of his operation, while the other had a repair of mesenteric defect at jejunojejunostomy, also at the second year of follow-up. The third patient was reoperated twice for bowel obstruction (6 months and 2 years postop), requiring laparoscopic enterolysis of adhesions on both the occasions. There were no mortalities.

All patients who underwent bariatric surgery ($n=15$) had at least 1-year follow-up with a percent excess weight loss of 33.2% at 3 months, 39.2% at 6 months, and 50.2% at 12 months. The 1-year percent excess weight loss of RYGB, LSG, and gastric banding was 59.9%, 39.6%, and 31.7%, respectively. Of these 15 patients, 11 completed 3-year follow-up and 6 completed 5-year follow-up. The median number of postoperative psychology and nutrition visits was three (range, 2–105) and three (range, 1–13), respectively.

Discussion

Obesity is increasingly affecting more people and, according to the Centers Disease Control (CDC), more than one-third of U.S. adults are obese (35.7%).[1] The estimated annual medical cost of obesity in the Unites States was 147 billion dollars in 2008. The medical costs for people who are obese were $1429 higher than those of normal weight people.[5] Bariatric surgery is a safe and durable treatment modality for morbid obesity and its comorbidities.[6–10] Obesity-related diseases are often undiagnosed before patients enroll into a bariatric surgery program, putting patients at increased risk for complications and/or early mortality. Psychological issues can not only foreshadow the development of obesity but they can also impede success in ongoing attempts to control weight. High-risk patients, particularly those with multiple psychiatric diagnoses, need to be well informed about the relative benefits of weight loss surgery versus the operative risks and psychological consequences of the surgery. For each patient who presents these challenges, the MC attempts to provide an appropriately tailored treatment plan to optimize the condition of the patient before surgery.

Unfortunately, there is no single psychological characteristic or set of psychological parameters of extremely obese individuals that is consistent in predicting outcomes following bariatric surgery.[11] In a systematic review, Livhits *et al.* reported factors that may be negatively associated with weight loss, including preoperative BMI, superobesity, and personality disorders. The potential association between other psychosocial disorders such as mood disorders and binge eating disorder with weight loss outcomes after bariatric surgery is not clear with heterogeneous results in various studies.[12] Herpertz *et al.* found in a systematic review that depressive and anxiety symptoms as correlates of psychological stress related to obesity seem to be positive predictors of weight loss postsurgery. Notably, the occurrence of postoperative psychiatric problems correlated closely with preoperative psychological assessment.[13]

Our results demonstrate that many of the MC patients were supermorbidly obese, had a lengthy evaluation period before surgery, and the majority did not undergo surgery. We found in our cohort that the small number of patients who successfully had bariatric surgery had satisfactory weight loss reaching up to 50% excess weight loss after 1 year of follow-up. The long preoperative management duration with frequent visits to the psychologists and dieticians may have contributed to the success of these patients.

In a study by Merrell *et al.*, patients who failed to complete program requirements often had significant psychiatric issues and/or substance abuse/dependence that required additional treatment.[14] In our study, the 25% who were not cleared for surgery were noncomplaint. Friedman *et al*. reported that 44.1% of their patients seeking bariatric surgery are nonadherent to preoperative psychological recommendations.[15] Sadhasivam *et al*. presented a 26.3% failure rate regarding preoperative psychological clearance.[16]

The frequency of different appointment types varied in this cohort of MC patients. The majority of these visits, though,

were with the psychology staff as would be expected. A significant portion of our cohort was diagnosed with having more than one psychiatric illness through a series of visits and consultation with the patient's primary mental health provider.

The length of stay of these patients was similar to the other high-risk bariatric patients in our practice, which is 3–4 days. The type of procedure done for the patient was decided according to BMI and the assessment of the risk-benefit analysis determined by the surgical team in agreement with the patient. The majority of individuals with supermorbid obesity had an LRYGB, followed by LSG and LAGB. Patients were followed postoperatively to maintain and monitor their adherence to their mental health treatment plan and behavioral changes after surgery. The early postoperative readmission rate (13%) for the patients who underwent surgery was fairly close to the readmission rate for the bariatric population without psychiatric profile undergoing bariatric procedure at our institution. We initially hypothesized that bariatric surgical patients with high-risk psychiatric profiles would require more resources and have more readmissions after surgery. In this small group of surgical patients, however, we did not find psychological or social readmissions to be an issue and all readmissions were related to nonpsychiatric complications.

The limitations of our study include relatively small numbers of patients (particularly those completing surgery) and its retrospective design, which did not allow us to collect changes in individual psychological profiles over time. Further research should focus on prospective evaluations of these high-risk patients to determine specific factors that may lead to long-term social, medical, or weight loss problems. These findings could potentially prevent the resource-intensive evaluation of patients who either will not be approved for surgery or will not benefit in the long term from surgery.

Conclusion

Patients with a high-risk psychosocial profile seeking bariatric surgery require extensive evaluation by a multidisciplinary team and utilize a large amount of time and resources to determine their candidacy. The majority of these patients are either deemed ineligible for surgery or require prolonged preoperative evaluations. The patients who do complete their MC requirements and undergo surgery have satisfactory outcomes.

Author Disclosure Statement

No competing financial interests exist.

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Address correspondence to:
Stacy Brethauer, MD
Bariatric and Metabolic Institute
Cleveland Clinic
Desk M61
9500 Euclid Avenue
Cleveland, OH 44195

E-mail: brethas@ccf.org