

Bulimia Nervosa and Laparoscopic Adjustable Gastric Banding

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Abstract

Among patients presenting for bariatric surgery, approximately 20% will receive a diagnosis of bulimia nervosa and between 11% and 37% will receive a diagnosis of binge eating disorder. The diagnosis of either disorder may adversely impact long-term surgical weight loss treatment success. This report describes the clinical features and 6-month treatment outcomes of a 56-year-old female Caucasian diagnosed with bulimia nervosa who underwent laparoscopic adjustable gastric banding. She presented for therapy with a clinical psychologist expressing the fear that she would "sabotage" her surgery. The case highlights the importance of treatment coordination, obtaining the patient's full medical history, the role of bulimia nervosa, the importance of the patient's previous weight loss history, and the function of social support. From the case presented, it is clear that treatment coordination is vital to treatment success. Eroding the efficacy of laparoscopic adjustable banding is a possibility, yet the impact of various types of eating disorders on the success and risks associated with various surgical procedures is uncertain. Future research should examine the long-term outcomes of clinician diagnosed eating pathology on bariatric weight loss procedures in adequately powered studies.

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Introduction

Various factors promoting the development and maintenance of obesity have been identified. Two contributing conditions are bulimia nervosa and binge eating disorder. Bulimia nervosa is characterized by (a) recurrent episodes of eating an objectively large amount of food in a discrete period of time accompanied by a sense of loss of control over the eating (binge eating); (b) recurrent use of inappropriate compensatory measures to prevent weight gain; (c) the binge eating and compensatory measures must occur an average of twice weekly for 3 months; (d) weight and shape must unduly influence self-evaluation; and (e) the individual must not meet diagnostic criteria for anorexia nervosa. The diagnosis is then subcategorized according to type which is determined by the compensatory behaviors used. The purging type is diagnosed if the person regularly uses vomiting, laxatives, diuretics, or enemas. The non-purging type is diagnosed if the compensatory behaviors are limited to fasting or inappropriate exercise (1). According to the results of a multi-site field study, the prevalence of bulimia nervosa in hospital-based weight loss treatment sites was 6.7% whereas the prevalence in community-based sites was only 1.5% (2). Among 24 female patients who presented for bariatric surgery, 5 (20.8%) met criteria for bulimia nervosa (3).

Binge eating disorder, a similar disorder, is characterized by (a) recurrent episodes of eating an objectively large amount of food in a discrete period of time accompanied by a sense of loss of control over the eating; (b) the presence of behavioral indicators of loss of control such as eating more rapidly than usual, eating until uncomfortably full, due to embarrassment about the amount that one is

eating large amounts when not hungry, eating alone eating, and feeling disgusted, depressed or guilty after overeating; (c) marked distress regarding the episodes; (d) a binge eating frequency of approximately twice a week for 6 months; and (e) the absence of use of any compensatory behaviors (1). The prevalence of binge eating disorder among obese samples varies widely. A multi-site field trial of the proposed diagnostic criteria for binge eating disorder showed a prevalence rate of 30.1% among persons attending hospital-affiliated weight control programs, but only 2% in community based samples (2,4). Among patients presenting for bariatric surgery, prevalence rates of 19 out of 110 or 17.3% (5), 9 out of 24 or 37.5% (3), and 4 out of 37 or 11% (6) have been reported.

The diagnosis of either bulimia nervosa or binge eating disorder may impact long-term surgical weight loss treatment success. Among 27 patients who had undergone gastric bypass surgery within the previous 3 years, patients with eating disorders evidenced short-term improvements that began to erode approximately two years following surgery (7). Among 24 women who had undergone vertical banded gastroplasty within the previous 3.5 years, there was a trend for a preexisting eating disturbance to be associated with weight regain, although the study was insufficiently powered and eating disorder diagnosis was based on retrospective report (3). A prospective study conducted among 116 patients presenting for what is described as gastric restrictive surgery showed that although 52% of the patients engaged in binge eating, only 16% ($n = 19$) met criteria for binge eating disorder (8). There was no relationship between pre-surgical eating pathology and weight outcomes at the 5.5 year follow-up, although this study was also underpowered. At follow-up, 33% of the patients ($n = 19$) were vomiting at least weekly. The authors suggest that frequent vomiting may indicate the presence of failed attempts to binge.

To date, no studies have examined the impact of a diagnosis of bulimia nervosa or binge eating disorder on treatment outcomes for the laparoscopic adjustable gastric banding. The present report describes the clinical features and 6-month treatment outcomes of a woman diagnosed with bulimia nervosa who underwent laparoscopic adjustable gastric banding.

Case Report

The patient is a 56-year-old female Caucasian who presented for psychotherapy with concerns about her eating behaviors. The patient was referred by a medical weight loss treatment provider who felt that she would never be able to control her weight unless her eating disorder was addressed. The patient had been scheduled to undergo laparoscopic adjustable gastric banding and expressed the fear that she would "sabotage" the surgery.

Clinical psychologists with expertise in eating disorders and obesity are often asked to evaluate patients presenting for gastric bypass surgery to determine readiness for the surgery, to assess the patient's ability to meet aftercare requirements, and to provide recommendations for enhancing treatment outcomes. Treatment begins with the assessment process, the first component of which is to determine the degree of coordination among the treatment providers and to enhance communication if necessary. In this case, the patient would not sign the releases of information that would permit contact with her primary care physician, the referring medical weight loss treatment provider, the surgical providers, or previous weight loss treatment providers.

The second component of assessment involves summarizing the patient's medical history. The medical history is typically obtained from the primary care physician or from the provider who is most knowledgeable of the patient, although in some instances, the complete history may only be obtained by contacting multiple providers. Due to the failure to provide consent to obtain this information, only the patient's self-report was available. According to the patient, she was 1.76 m in height and weighed 173.73 kg, for a body mass index of 56.56 kg/m². She reported that she was hypertensive and that she was being evaluated for sleep apnea. She denied the presence of any other physical problems or medication allergies despite the observation that she had marked difficulties with ambulation.

The third area of assessment involves whether or not a patient has an active eating disorder. The patient was engaging in near daily episodes of binge eating accompanied by a sense of loss of control and emotional numbness. The binge eating episodes occurred in private, often in the patient's car

or bedroom. During the binges, the patient would eat as rapidly as possible until she was too sick to eat or incapable of swallowing. Following the episodes, the patient was overcome by a sense of shame, guilt, and self-loathing. The patient would then either force herself to vomit (which she did approximately two to three times per week) or would cry herself to sleep. Although the patient had previously vomited on a more frequent basis, she had become scared when she began throwing up blood. The patient's weight, which had been gradually increasing, was a significant source of self-hatred. Although the patient was diagnosed with bulimia nervosa because of her use of purging behaviors at least two times per week, her binge eating behavior and clinical features were also highly characteristic of binge eating disorder.

The fourth area of evaluation involves the patients' weight loss history. The patient had been obese since the age of 5. She reported that her mother would sit down with her after school and that they would eat together until evening. The patient learned to tolerate eating a great deal of food and her own obesity eventually surpassed that of her mother. The patient continued these eating habits as an adult. Although the patient had tried several diets ranging from "fad diets" to well-recognized weight loss programs, she had never been successful or would temporarily lose very modest amounts of weight. The level of dietary restriction involved in the weight loss programs left the patient with feelings of deprivation and no alternatives with which to replace her binge eating behaviors. Ultimately, she would resume binge eating and regain the lost weight rapidly. Medication therapy was similarly disappointing. Although a trial of Fen-Phen, now associated with heart valve damage and primary pulmonary hypertension, was initially successful, the results diminished over time. Also, because the treatment was obtained without the knowledge of her primary care physician, it is uncertain whether the patient sustained any ill effects. The fifth area of evaluation involves the patient's support network. The patient's mother still engaged in these behaviors and would still periodically visit her daughter to "eat" with her. The patient's family was not supportive of her weight loss attempts nor of therapy, repeatedly scheduling events that required her to provide transportation for her children during her scheduled sessions. Although married, the patient only interacted with her husband as needed. The

patient had no friends or colleagues to whom to turn for support. Indeed, she felt that her job was in jeopardy because she did not fit her employer's "image" and felt that her coworkers were overly judgmental of her. Finally, the patient was dismissive of support groups and felt that they merely reinforced her feelings of alienation by sequestering her and others like her to private groups.

The final area of assessment was the patient's knowledge of the procedures, aftercare requirements, and expectations regarding surgical success. The patient was very knowledgeable. In fact, she had learned how to sabotage the surgery by drinking high calorie liquids and by consuming large amounts of liquids with her food. The patient admitted that the surgeon had expressed this very concern and that she had been quick to dismiss his concerns by stating that she was participating in therapy. The patient feared that if she was compliant, she would lose a great deal of weight which would impact the way that others treated her. The patient found this possibility intolerable as she did not wish to re-establish relations with her husband or with persons who she felt had treated her poorly because of her obesity.

The patient was seen 3 times prior to surgery and 3 times after surgery. She cancelled 5 sessions. Prior to surgery, treatment was directed at fostering treatment coordination, establishing support sources, and decreasing binge eating behaviors. Treatment was unsuccessful with regard to the first two goals. The patient was able to identify a few binge eating triggers and observed that she needed her binges to cope with various stressors in her life. The patient was seen approximately one month following surgery. She reported that she could no longer binge eat, but had been trying. For example, the day she arrived home following the surgery, she attempted to eat cheese and bacon potato wedges which had resulted in a visit to the emergency room. Three months post-operation, the patient had lost 13 lbs. She was embarrassed to visit the surgeon because of the small amount of weight that she had lost and had difficulty keeping her appointments with him. She was very discouraged and discontinued therapy.

Discussion

Several issues of great importance are evident in this case. Clinical psychologists may be able to provide comprehensive information to

bariatric treatment providers by performing assessments that take into consideration the patient's social background, weight and weight loss history, eating attitudes and behaviors, knowledge of the surgical procedures and aftercare requirements, expectations regarding outcomes, social support networks, health status and health history, and recommendations to attain treatment readiness and improve outcomes. However, this information is of limited value unless rendered in a coordinated treatment context.

It is vital that bariatric surgery providers are knowledgeable of the eating disorders of their patients. Although it is possible that a surgical candidate may fail to disclose relevant information, this possibility can be attenuated if the patient is required to provide consent for release of information with other treatment providers and perhaps friends or family members. Had the surgeon been able to speak with the psychologist to check on the patient's claim that she was participating in therapy, he would have learned that his suspicions were correct.

Also of importance is the role of eating disorders in bariatric surgical outcomes. Outcomes are likely to be impacted by the nature and severity of the eating disorder as well as the type of surgical procedure. It would appear that a limitation of the laparoscopic adjustable gastric banding procedure is the ease with which a patient may resume binge eating. It has been previously documented that patients who consume large quantities of soft foods or liquids may not have satisfactory surgical weight loss outcomes (9, 10). Binge eating may also stretch the pouch, break the band, cause the band to migrate, or create an obstruction. Indeed, adjustable gastric banding is associated with less weight loss than the more well-known Roux-en-Y gastric bypass procedure, the present gold standard (11). The Roux-en-Y procedure, which combines gastric restriction with malabsorption, may result in a "dumping syndrome" if too much sugar or large amounts of food are consumed and may be more efficacious for patients who engage in binge eating. However, binge eating itself poses additional risks. The long-term success of both procedures depends on the ability to reduce hunger and the amount of food eaten. Although surgical procedures may alter eating

patterns, it is still possible to engage in unrestrained and inappropriate eating which may ultimately mitigate the efficacy of surgery (12).

Another area of importance is the patients' social context and associated expectations which may impact the desire to attend appointments, adhere to treatment recommendations, and obtain appropriate aftercare. Clearly, this patient lacked social support. Indeed, she feared that if she did lose weight, she would have to associate with persons toward whom she harbored a great deal of anger. It is also uncertain how the patient's weight loss would have impacted her feelings about herself. It is disturbing that a patient would go to such lengths to lose weight and yet be ready to sabotage the process. Upon occasion, patients will exhibit similar behaviors regarding other issues while in therapy. For some, purposely "failing" therapy allows the patient to entertain the belief that every alternative has been exercised and that they are therefore absolved of all responsibility and need seek no further resolution.

The long-term outcomes of laparoscopic adjustable gastric banding among patients with bulimia nervosa, binge eating disorder, and other eating disorders such as night eating syndrome and eating disorders not otherwise specified is not yet known. Studies investigating these outcomes with other types of surgical procedures often lack adequate sample size, use a follow-up period of insufficient length, and provide insufficient details of the surgical procedures used as well as the methods used to diagnose the number and types of eating disorders present. Multi-site treatment outcome studies are needed to identify the reasons for differential weight loss outcomes following bariatric surgery. Finally, treatment coordination and psychological issues may be important determinants of treatment outcomes and should be included as standard components of treatment.

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