

CASE REPORT

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## Bulimia nervosa following bariatric surgery: a case report

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### Abstract

Bariatric surgery is an obesity treatment method gaining popularity in recent years. Since it may cause rapid weight loss and improvement in comorbid conditions, it is a preferred modality in some of the obese patients. Both obesity and bariatric surgery interact with psychiatric disorders and require a thorough psychiatric evaluation. It has been shown that eating disorders diagnosed in the preoperative period may continue postoperatively as well. However, development of eating disorders in the postoperative period for the first time is quite rare. Here, we present a patient who was diagnosed with bulimia nervosa after she had bariatric surgery for obesity. After psychiatric evaluation, she was diagnosed with bulimia nervosa that developed after bariatric surgery. Medical and cognitive behavioral therapy programs were initiated. A partial improvement in her disturbed body perception was observed. She is still on medical and cognitive behavioral therapies. Eating disorder like bulimia nervosa may develop even in patients whose preoperative psychiatric evaluation is normal. Therefore, we suggest not only preoperative but also postoperative detailed psychiatric evaluation and follow up in obese patients who are candidate for bariatric surgery.

**Keywords:** Morbid obesity, bariatric surgery, bulimia nervosa, weight loss

### Introduction

Obesity is a health problem with serious medical, psychological and economic consequences. The relationship between obesity and mental health is important. A special relationship between obesity and major depression, bipolar disorder, panic disorder and eating disorders (EDs) has been reported [1]. Bariatric surgery (obesity surgery) is now an increasing popular method for the treatment of morbid obesity. It is quite effective both on the obesity itself and its medical and psychological co-morbidities [2,3]. Studies have shown the eating disorder behavior in patients with a preoperative eating disorder to continue after the surgery [4]. Most of the research in this field has focused on binge eating disorders [5]. The continuation of weight loss to a dangerous level due to limitation of nutrition despite adequate weight loss following bariatric surgery is a very rare problem. Fear of gaining weight back to the previous level is the reason of food intake limitation at a dangerous level in these patients. They develop anorexia nervosa, with the distorted perception that they are still obese and must lose further weight. Although anorexia nervosa developing after bariatric surgery has been reported in the literature, data on bulimia nervosa where vomiting is pronounced are more limited. Patients usually describe vomiting related to excessive or rapid eating and improper chewing behavior following obesity surgery [6]. However, the vomiting here is not with the

purpose of controlling the weight or physical appearance, as will be discussed in our case.

Our young female case developed bulimia nervosa after bariatric surgery although she had no premorbid psychopathology. It is quite important when planning the treatment to differentiate between vomiting related to inappropriate eating behavior, which is common after surgery, and vomiting due to bulimia nervosa. We aimed to contribute to increase the awareness of the surgeons and psychiatrist who perform the relevant evaluation in the postoperative period.

### Case

Our 22-year-old female patient was a single, 3rd year university student. She expressed that she had a weight problem since childhood. She presented to the İnönü University General Surgery Department's Bariatric Surgery unit about a year ago. BMI was 44.3 (height 165 cm, weight 121 kg) at presentation. No additional physical or mental disorder was found on endocrine and psychiatric evaluations in the preoperative evaluations. The patient underwent laparoscopic gastric bypass on 16 December 2014 and lost 25 kilos within the initial 100 postoperative days. Later her weight loss slowed down. She was thinking that she had not changed when she looked in the mirror. She took photos for comparison and she was not satisfied although there was a difference with her old photos. She began to focus excessively on her body image and weight. She did not comply with the given diet programs. She was losing control and eating more than she should of food she should avoid. She

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regretted these moments afterwards and tried to vomit by using her finger, especially after dinner. Then, she ate nothing for a few days. She did not use the vitamins suggested by her physician, fearing weight gain. She continued to lose weight during this process and lost 62 kg. She was referred to the psychiatric outpatient clinic by General Surgery outpatients where she presented for follow-up.

She was initially interviewed by a psychiatrist with the Structured Clinical Interview for DSM-IV for axis I (SCID-I) and axis II (SCID-II). She was conscious, cooperative, and oriented. There was no noticeable abnormal external characteristic other than her slim appearance. Her clothing was consistent with her socio-cultural and economic characteristics and her psychomotor behavior was normal. The quantity and speed of speech was normal. She was excessively focused on her weight. Her associations were normal. No perception disorder (such as hallucination or illusion) other than the altered body image perception was found in the patient who felt overweight despite knowing that she had lost 62 kilos.

She expressed that she had no preoperative psychiatric disease and did not receive any treatment. She said that she had not struggled as much with her body before the surgery despite being overweight then. Her family history revealed no psychopathology. Based on the information, the patient was diagnosed with bulimia nervosa that had developed after bariatric surgery. Fluoxetine 20 mg od was started and the patient was

included in a cognitive behavioral therapy program, which is the essential treatment approach in eating disorders. The patient stated that her vomiting had decreased with the treatment later on. There was a partial improvement in her disturbed body perception but the therapy process and medical treatment continue.

## Discussion

We presented a bulimia nervosa case that developed after bariatric surgery in this article. The differentiation of pathologic and normal eating behavior after bariatric surgery is a controversial issue. Bariatric surgery requires major changes in eating behavior. Gastric limitation requires a great reduction in the amount of food that can be eaten at any meal and this is the main mechanism of weight loss. The patients are encouraged to eat in small amounts, to chew all foods well, and to stop eating as soon as a feeling of fullness occurs. Vomiting resulting in response to the fullness of the upper gastrointestinal tract is seen commonly during the first six postoperative months. Vomiting can occur involuntarily or voluntarily due to feeling of discomfort. However, the voluntary vomiting here is not for weight loss but to eliminate the feeling of discomfort [7]. Binge eating episodes along with a sense of having lost control and conscious vomiting with a sense of regret were present in our case. The diagnosis of bulimia nervosa was supported by a history over 3 months, episodes occurring more than once a week, and the presence of excessive focus on the weight and body image (table 1).

**Table 1.** Key Diagnostic Criteria for Bulimia Nervosa– Adapted from DSM 5

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- A. Recurrent episodes of binge eating
  - B. Recurrent inappropriate compensatory behavior in order to prevent weight gain
  - C. The binge eating and inappropriate compensatory behaviors both occur at least once a week for 3 months
  - D. Self-evaluation is unduly influenced by body shape and weight
  - E. The disturbance does not occur exclusively during episodes of Anorexia Nervosa
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The number of studies showing that maladaptive eating behavior after bariatric surgery is often seen in morbid obese patients is increasing rapidly. Bariatric surgery patients are very much afraid to regain weight after they reach a plateau. This has led to case reports of various eating disorders developing after surgery [7]. However, the data on the prevalence and nature of classic eating disorders such as bulimia nervosa and anorexia nervosa are limited. The reason may be that these eating disorders are not reported by the patients and/or are overlooked. However, subsyndromal symptoms are more common. In order to develop a common perception and provide clear rules, Segal et al. have recommended a new description under the name Post-Surgical Eating Avoidance Disorder (PSEAD) [8]. This syndrome is characterized by: (1) a previous history of morbid obesity, followed by bariatric surgery in the last 2 years; (2) use of purgative strategies or excessive reduction of food intake; and (3) rapid weight loss [8].

Although the eating disorders that occur after surgery often do not fully meet the diagnostic criteria for DSM-5

eating disorders, the research on whether Post-Surgical Eating Avoidance Disorder (PSEAD) is a separate entity from eating disorders is inadequate. Post-Surgical Eating Avoidance Disorder (PSEAD) can be considered when symptoms develop after surgery but it is important to know that the usual eating disorders are also possible at this stage. These patients should be referred to mental health professionals for their clinical management. There is no consensus on what psychological intervention is the most appropriate and effective. However, knowing the eating attitudes exhibited by the surgical candidates in stressful life events or different environments is important to differentiate the eating problems developing after bariatric surgery and to cope with these situations [9]. The surgeon's increased awareness of the condition is important at this point. The data on treatment approaches in eating disorders developing during the postoperative period are limited to a few cases of anorexia nervosa [10]. The interventions to be used can be one or more of the various treatment methods such as pharmacological intervention, psychoeducation, psychotherapy to address potential obstacles after

surgery, nutrition counseling, close monitoring after surgery, and encouraging the patient to participate in a bariatric surgery support group.

Obese patients who are candidate for bariatric surgery need a detailed preoperative and postoperative psychiatric evaluation. It must be kept in mind that eating disorder like bulimia nervosa may develop even in patients whose preoperative psychiatric evaluation is normal.

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