

THE EMERGENCE OF DEPRESSION AND ANXIETY DISORDER IN A PATIENT
FOLLOWING BARIATRIC SURGERY: A CASE REPORT

BARIATRİK CERRAHİ SONRASI MAJÖR DEPRESYON VE ANKSİYETE
BOZUKLUĞU GELİŞİMİ: BİR VAKA SUNUMU

Mazlum ÇÖPÜR¹, Nilüfer SAATÇIOĞLU TINKİR², Sidar ÇÖPÜR³

ABSTRACT

Psychiatric comorbidities are commonly encountered in obese patients admitted for bariatric surgery among which major depressive disorder and anxiety disorder are the most common types. Although most studies demonstrate a significant reduction in psychiatric complaints at postoperative follow-up, the relationship or mechanism of such effect is not definitive. We report the emergence of major depressive disorder and anxiety disorder in a 57-year-old female patient at sixth-month follow-up with no family history of psychiatric disorder or preoperative psychiatric disorder. Symptomatic control has been achieved with selective serotonin reuptake inhibitor therapy. Hereby, we recommend close psychiatric follow-up of bariatric surgery candidates at pre and postoperative periods.

Key Words: Bariatric surgeries, major depressive disorder, anxiety disorders

ÖZET

Bariyatrik ameliyat için hastaneye başvuran obez hastalarda majör depresyon ve anksiyete bozuklukları başta olmak üzere psikiyatrik hastalıklar sıklıkla görülmektedir. Ameliyat sonrası dönemde psikiyatrik belirtilerde gerileme çok sayıda çalışmada bildirilmiş olmasına rağmen olası ilişkinin mekanizması net değildir. Bu vaka sunumunda ameliyat öncesindeki psikiyatrik değerlendirmesinde herhangi bir psikiyatrik hastalığı veya psikiyatrik hastalıklar açısından aile hikayesi olmayan 57 yaşında bir kadın hastada ameliyat sonrası dönemde majör depresyon ve anksiyete bozukluğu gelişimini göstermekteyiz. Hastada seçici serotonin geri alım inhibitörü tedavisiyle semptomatik kontrol sağlanmıştır. Bu bağlamda, bariyatrik cerrahi aday hastaların ameliyat öncesi ve sonrası dönemde yakın psikiyatrik takibi yapılması gerektiğini önermekteyiz.

Anahtar Kelimeler: Bariyatrik cerrahiler, majör depresif bozukluk, anksiyete bozuklukları

¹ Sorumlu Yazar/Corresponding Author: Prof. Dr., İstanbul Arel Üniversitesi, Sağlık Bilimleri Fakültesi, Çocuk Gelişimi Bölümü, İstanbul

ORCID: 0000-0001-9218-0296

² Uzman Psikolog, Serbest

ORCID: 0000-0002-8049-1801

³ Arş. Gör. Dr., Koç Üniversitesi, Tıp Fakültesi, Dahiliye Kliniği, İstanbul

ORCID: 0000 0003 0190 274

1. INTRODUCTION

57% of obese patients suffer from at least one psychiatric condition while depression and anxiety disorder are the most common comorbidities (Fisher et al., 2017, Yuan et al., 2019, Gibb J. 2021). Despite not being a predictor of postoperative weight reduction, anxiety and depression are common reasons for admission to bariatric surgery as indicated by significantly higher rates of psychiatric comorbidities compared to non-treatment-seeking obese people (Sarwer et al., 2004, Sevincer et al. 2014). However, the efficiency of bariatric surgery on reversal of psychiatric comorbidities is unclear while most studies indicating a statistically significant reduction in depression, anxiety, antidepressant use, and psychiatry admissions following bariatric surgery (Burgmer et al., 2007; Mitchell et al., 2014). Peak reductions in psychiatric comorbidities are achieved in postoperative first 2 years while relapses may occur later on (Luppino et al., 2010, Gill et al., 2019). We present a case with the emergence of severe anxiety and depression in the early postoperative period following sleeve gastrectomy that required pharmacological treatment.

Case Presentation

A 57-year old female patient with type II diabetes mellitus poorly controlled with metformin treatment (Fasting plasma glucose = 243 mg/dl) presented to the bariatric clinic with a body mass index (BMI) of 39.73 (Height = 158 cm, weight = 99.2 kg). Past medical history was negative for any psychiatric disorder or use of any psychiatric medications. Family history was insignificant for any neurological and psychiatric conditions. The preoperative psychiatric evaluation revealed mild depression (Beck depression inventory = 15, 10-16: mild depression) and moderate anxiety (Beck anxiety inventory = 17, 16-25: moderate anxiety). However, the patient did not meet the diagnostic

criteria for major depressive disorder or anxiety disorder. Patient underwent a sleeve gastrectomy with no significant postoperative complications. At the 6th-month follow-up patient presented with a BMI of 30.04 with approximately 25 kg weight loss. The patient was referred to the adult psychiatry department for detailed examination due to depressive complaints developed at postoperative period and noticed by the patient which led to a diagnosis of generalized anxiety disorder and major depressive disorder following the criteria of The Diagnostic and Statistical Manual of Mental Disorders (DSM-5). The psychiatric evaluation demonstrated severe depression (Beck depression inventory = 32) and moderate anxiety (Beck anxiety inventory = 28) in accordance with the psychiatric clinical examination findings. Patient was prescribed with selective serotonin reuptake inhibitor (20 mg/day fluoxetine). Follow-up of the patient was uneventful so far with significant symptomatic improvement. Informed consent of the patient was obtained.

Discussion

Depression and anxiety are common reasons for admissions to weight-loss surgery and are considered as comorbidities, predominantly by impairing quality of life. The emergence of depression and anxiety disorder following bariatric surgery have been reported in large scale studies while most cases include such cases at later follow-up period (ie. 2-year follow-up) in contrast to our case presentation at postoperative month 6 (de Zwaan et al., 2011; Lagerros, Brandt, Hedberg, Sundbom, & Bodén, 2017). Postoperative depression following weight-loss surgery has been linked to nutritional deficiencies, especially following restrictive procedures such as Roux-en-Y gastric bypass while no such deficiency was detected in our case (Faria et al., 2016). Additionally, altered

levels of gastrointestinal tract-related hormones including gastrin, ghrelin, insulin, glucagon-like peptide 1, secretin, cholecystokinin, pancreatic peptide YY and vasoactive intestinal polypeptide have been implicated in the pathophysiology of neuropsychiatric complications of bariatric surgery (Dimitriadis, Randeve, & Miras, 2017). Similarly, impairment of the hypothalamus-pituitary-adrenal axis is indicated in the pathophysiology of postoperative anxiety in rat studies (Himel, Cabral, Shaffery, & Grayson, 2018). No sign of hormonal imbalance was present in our case. Our case is significant by demonstrating a rare case of early postoperative onset depression and anxiety disorder that emerged after bariatric surgery with no sign of hormonal or nutritional imbalance in Turkey. Thus, we recommend close psychiatric follow-up of every bariatric surgery patient at the postoperative period with consideration of nutritional deficiencies and

hormonal imbalances in the differential diagnosis of depressive or anxious symptoms.

Conclusion

Obese patients and bariatric surgery candidates are more prone to have psychiatric comorbidities while remission of those comorbidities is expected in the postoperative period in most studies. However, patients with no history of any psychiatric disorder may develop such comorbidities at postoperative period as in the presented case. Therefore, close preoperative and postoperative psychiatric follow-up of bariatric surgery candidates is essential.

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