CASE REPORT – OPEN ACCESS

International Journal of Surgery Case Reports 5 (2014) 1268–1270

Contents lists available at ScienceDirect

International Journal of Surgery Case Reports

journal homepage: www.casereports.com

Obesity and co-morbid psychiatric disorders as contraindications for bariatric surgery?—A case study

C. Peterhänsel[a,b,*], B. Wagner[a,b,1], A. Dietrich[b,c], A. Kersting[a,b]

[a] University Hospital Leipzig, Clinic for Psychosomatic Medicine and Psychotherapy, Semmelweisstraße 10, 04103 Leipzig, Germany
[b] Leipzig University Medical Center, Integrated Research and Treatment Center (IFB) AdiposityDiseases Germany, Philipp-Rosenthal-Str. 27 (Rotes Haus, M), 04103 Leipzig, Germany
[c] University Hospital Leipzig, Department of Surgery, Clinic for Visceral, Transplantation, Thoracic and Vascular Surgery, Liebigstraße 20, 04103 Leipzig, Germany

ARTICLE INFO

Article history:
Received 18 July 2014
Received in revised form 6 November 2014
Accepted 8 November 2014
Available online 13 November 2014

Keywords:
Bariatric surgery
Psychiatric aspects
Borderline personality disorder

ABSTRACT

INTRODUCTION: Many patients undergoing bariatric surgery report current or past psychiatric disorders and controversy exists regarding their outcome after bariatric surgery.
PRESENTATION OF CASE: We present a case of an obese patient with a borderline personality disorder, a recurrent depressive disorder, post-traumatic stress symptoms and binge eating episodes who underwent bariatric surgery.
DISCUSSION: Although the psychiatric disorders remained, the procedure contributed to an improvement of the health status and well-being of the patient. Adequate psychological care after the surgical procedure is necessary to enable a long-term stabilization of patients with mental co-morbidities.
CONCLUSION: Patients with psychiatric co-morbidities should not be excluded from the procedure if adequate post-operative support is provided.

1. Introduction

Obesity (body mass index (BMI) ≥ 30 kg/m^2) and its associated diseases have become a worldwide problem. One of the most effective treatments is bariatric surgery, which has a huge influence on loss of excess weight, whilst improving co-morbid diseases[1] and psychological disturbances.[2]

It is not clear whether patients presenting for bariatric surgery are more prone to psychopathology[3] and if the extent of this affects weight loss and well-being.

On the basis of the following case study we would like to demonstrate that some patients presenting for bariatric surgery suffer from mental co-morbidities that should not be considered as exclusion criteria, but that indicate a requirement for adequate post-operative support.

2. Presentation of case

The patient gave written informed consent prior to participation in the study, and permission to use her biographical and test data for this presentation.

A 47-year-old woman first attended the adiposity outpatient clinic in December, 2009. She had an initial BMI of 69.2 kg/m^2 and reported co-morbid polyneuropathy, hypertension and a recurrent depressive disorder in the context of a borderline personality disorder. Occasional binge eating episodes appeared.

The patient asserted that until the age of 14 her weight was normal but that it started to increase after a sporting accident. She reported that her father had attempted to abuse her sexually. Another traumatic event occurred when she first visited a gynaecologist, who tore her hymen with a speculum leaving her feeling totally helpless. She had realized through psychotherapy that she was using weight gain to feel less attractive to men and protect herself from sexual relationships she did not feel able to cope with. This reflects one of the theories regarding childhood sexual abuse and the development of obesity.[4] She grew up in an achievement-oriented family with minimal emotional support, which contributed to her limited experiences of being appreciated.

Further, food always played an important role for her. In stressful times she used sweets as “nourishment for her nerves” or to give her solace, underlining the theory of emotional eating.[5] The amounts of food increased consistently during the years and her

* Corresponding author at: University Hospital Leipzig, Integrated Research and Treatment Center (IFB) AdiposityDiseases, Clinic for Psychosomatic Medicine and Psychotherapy, Semmelweisstraße 10, 04103 Leipzig, Germany.
Tel.: +49 0 341 9718951; fax: +49 0 341 9718849.
E-mail address: Carolin.Peterhaensel@medizin.uni-leipzig.de (C. Peterhänsel).
[1] MSB Medical School Berlin, Calandrellistraße 1–9, 12247 Berlin, Germany.

http://dx.doi.org/10.1016/j.ijscr.2014.11.023

Table 1
Patients' measures pre-surgery, 6 months, 9 months and 12 months post-surgery.

	Pre-surgery	6 months post-surgery	9 months post-surgery	12 months post-surgery
IES intrusion	19	9		22
IES avoidance	20	21		19
IES hyperarousal	26	3		11
IES total score	65	33		52
BDI-II	17	15	17	8
BSS	12	3	13	9
CTQ emotional neglect	20			
CTQ emotional abuse	20			
CTQ physical neglect	15			
CTQ sexual abuse	9			
EDE-Q Global Score	2.368	2.75		3.58

IES-R: a cut-off score of 33 was found to provide the best diagnostic sensitivity and specificity (9).
BDI-II: a cut-off score of 14 has been confirmed to differentiate between persons without or with a major depressive disorder (7).
BSS: an increasing sum score suggests a higher risk of suicide (8).

first episodes of binge eating occurred at the age of 31. Additionally, self-destructive behaviour, especially cutting or scratching herself, became a method to relieve emotional pressure. From the age of 19 she attempted suicide several times, triggered by unfulfilled career aspirations or interpersonal conflicts she could not resolve.

When she was 28 she had her first inpatient psychiatric treatment and she later started outpatient cognitive behavioural psychotherapy. Although she experienced this treatment as helpful she became psychologically unstable over the following years and had a history of outpatient psychotherapy and inpatient stays. Conflicts and the feeling of not being supported reliable or forced to do something she did not want to do contributed to her sense of instability.

Another burdening life event occurred when, aged 40, she dated a man in a relationship that ended in disappointment and gave her the feeling of being emotionally rejected.

Meanwhile, she had started several weight reduction programmes on her own initiative and at 43 she decided to look for professional help with weight management.

During her first year in the obesity outpatient clinic her weight stabilized, albeit at a high level (BMI: 70.0 kg/m^2). As it was difficult to lose weight she decided to undergo bariatric surgery. Further reasons were her worries concerning her visceral state and her wish to reintegrate herself back into working life.

A gastric sleeve procedure was performed when she was 45 years old (BMI 74.4 kg/m^2). She rapidly improved physically and psychologically and reported increasing mobility, losing 60 kg in 8 months (BMI 53.6 kg/m^2). Furthermore, her suicidal ideation became less prominent. Some bulimic episodes occurred when she had the feeling of having eaten too much. After another 6 months, her weight loss stagnated and therefore the surgery of a duodenal switch was undertaken. Some psychiatric disturbances occurred after the procedure as the patient was suffering from depressive episodes and even reported increased suicidal ideation. Also, she still was worrying about phases of over-eating and problems with the bowel, so that she felt insecure with her body.

At 47, her weight was 126 kg (BMI: 43.6 kg/m^2) meaning that she had lost approximately 90 kg during 2 years. Her physical fitness improved and she was able to work for some hours a day, although she still needed psychiatric and nutritional support.

3. Outcome measures

The outcome measures provided in Table 1a refers to the woman presented in the case report. Childhood abuse experiences were assessed using the Childhood Trauma Questionnaire.[6] The results, measured to obtain a baseline before the duodenal switch, reflected severe levels in the scales emotional abuse, emotional neglect and physical neglect, a moderate level in sexual abuse, but no evidence for physical abuse, according to the valuation of the German population of Häuser et al.[7]

The Beck Depression Inventory-II (BDI-II)[8] is used to measure the severity of depressive symptoms (according to the diagnostic criteria for major depressive disorders described in the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV)). A cut-off score of 14 has been confirmed to differentiate between persons without or with a major depressive disorder.[9] The patient presented symptoms of a mild depressive episode at both the baseline and at the 6- and 9-month follow-up measurements but not after 12 months.

The Beck Scale for Suicidal Ideation (BSS) is used to assess thoughts, plans and intents of patients to commit suicide.[10] By just focussing on the screening items and qualitative data of the scale, as no clear cut-off exists,[11] suicidal ideation was featured at the baseline time point as well as in the assessments at 9-months and 12-months follow-up, without plans to attempt suicide.

The Impact of Event Scale – Revised (IES-R) is an instrument to diagnose symptoms of Post-traumatic Stress Disorder.[12] A cut-off 33 for the total score has been found to provide best diagnostic criteria.[13] The patient was found to be suffering from post-traumatic symptoms at all measuring points.

The Eating Disorder Examination – Questionnaire (EDE-Q)[14] has been designed to measure the specific psychopathology of eating disorders. As no cut-off scores exist, our patient was compared to norms of the German population.[15] 12 months after the surgical intervention the Global Score of the EDE-Q was found to lie between the 95th and 99th percentile, indicating that she still seem to have difficulties in this area.

4. Discussion

The described case represents a severely obese person with various psychiatric diagnoses who underwent bariatric surgery to reduce weight, improve her physical health and return to work. She was able to achieve these three aims, but the pre-existing psychiatric disorders remained.

An improvement of the depressive pathology was observed 12 months post-surgery, even though previous measurements were indicative of a mild depressive episode. This is in accordance with the literature, as most obese patients experience an improvement of their mental disorders after bariatric surgery.[16]

Despite this amelioration in depression, no improvement was observed for the borderline personality disorder, post-traumatic symptoms and suicidal ideation (except 6 months post-surgery) of the patient. Also, in addition to her description of episodes of binge eating and vomiting, the patients 'eating pattern 12 months after surgery was found to be suspicious. There is evidence that some bariatric patients suffer from adverse outcomes, so that an increase

in vomiting is possible[16] and depressive symptoms may develop or be sustained.[17] The percentage of committed suicides has also described to be significantly higher within this population.[18]

The results of our case may be explained by the underlying borderline personality disorder, which is commonly described as a chronic disorder with slow and more unstable remissions or recoveries[19] and a high association with co-morbid psychological disturbances such as eating disorders, suicidal ideation, traumatic experiences and affective disorders.[20]

Most existent post-operative programmes focussed on weight loss and the need to restructure the diet and lifestyle of bariatric patients.[21] It can be found that patients attending a post-surgical group lose more weight than patients who do not, but those programmes do not have a focus on psychiatric disorders.[21] But, as mentioned before, a number of bariatric patients do not experience a remission of their psychological symptoms and this again has an impact on further weight loss.[17]

Further, it must be mentioned that the procedure of a duodenal switch is performed seldom because of "the higher reported rates of short-term complications, and concerns about the longer-term nutritional consequences"[22] of this procedure. On the other hand it provides superior weight loss and the cure of comorbid diseases.

Therefore, it is necessary for patients suffering from mental disorders to receive adequate psychological and nutritional care after the surgical procedure. Especially, patients with a duodenal switch should attend regular support including both group programmes and individual treatments so that the handling of the rapid changes after the operation but also long-term stabilization can be ensured.[23] Furthermore, the patients' motivation to seek psychotherapeutic treatment and to adhere to dietary guidelines has a major impact on post-operative success.

5. Conclusion

As this case illustrates, patients with obesity, personality disorders and other coexisting chronic mental disturbances should not be excluded from bariatric surgery, as this contributes to weight loss, improvement of physical disorders and reintegration into working life, provided they receive adequate psychotherapeutic support. Nonetheless, the patients' motivation to undergo psychotherapy and to comply with the post-operative diet should be evaluated prior to surgery.

Conflict of interest

No conflict of interest was declared.

Funding

This work was supported by the Federal Ministry of Education and Research (BMBF), Germany, FKZ: 01EO1001.

Ethical approval

Written informed consent was obtained from the patient for publication of this case report.

Author contributions

Carolin Peterhänsel wrote the manuscript, was involved in the interview of the patient and in the collection and interpretation of the data. Birgit Wagner was involved in the interview and supervised the writing of the case report. Arne Dietrich was the attending surgeon of the present case. Anette Kersting was involved in the review and preparation of the manuscript. All authors approved the final manuscript.

References

1. Buchwald H, Avidor Y, Braunwald E, Jensen MD, Pories W, Fahrbach K, et al. Bariatric surgery: a systematic review and meta-analysis. *JAMA* 2004;**292**(14):1724–37.
2. Wadden TA, Sarwer DB, Fabricatore AN, Jones L, Stack R, Williams NS. Psychosocial and behavioral status of patients undergoing bariatric surgery: what to expect before and after surgery. *Med Clin North Am* 2007;**91**(3):451–69.
3. Greenberg I, Perna F, Kaplan M, Sullivan MA. Behavioral and psychological factors in the assessment and treatment of obesity surgery patients. *Obes Res* 2005;**13**(2):244–9.
4. Gustafson TB, Sarwer DB. Childhood sexual abuse and obesity. *Obes Rev* 2004;**5**(3):129–35.
5. Geliebter A, Aversa A. Emotional eating in overweight, normal weight, and underweight individuals. *Eat Behav* 2003;**3**(4):341–7.
6. Bader K, Hanny C, Schafer V, Neuckel A, Kuhl C. Childhood trauma questionnaire – psychometric properties of a German version. *Z Klin Psychol Psychother* 2009;**38**(4):223–30.
7. Häuser W, Schmutzer G, Brähler E, Glaesmer H. Misshandlungen in Kindheit und Jugend. *Dtsch Arztebl* 2011:287–94.
8. Hautzinger M, Keller F, Kühner C. *BDI-II beck depressions-inventar*. Frankfurt am Main: Harcourt Test Services; 2006.
9. Beck A, Steer RA, Brown GK. *Beck depression inventory, Manual*. 2nd edn. San Antonio: The Psychological Corporation; 1996.
10. Beck AT, Rush AJ, Shaw BF, Emery G. *Kognitive Therapie der Depression*. München: Urban & Schwarzenberg; 1981.
11. Cochrane-Brink KA, Lofchy JS, Sakinofsky I. Clinical rating scales in suicide risk assessment. *Gen Hosp Psychiatry* 2000;**22**(6):445–51.
12. Weiss DS, Marmar CR. The impact of event scale – revised. In: Wilson JP, Keane TM, editors. *Assessing psychological trauma and PTSD*. New York: Guilford; 1996. p. 399–411.
13. Creamer M, Bell R, Failla S. Psychometric properties of the Impact of Event Scale – revised. *Behav Res Ther* 2003;**41**(12):1489–96.
14. Fairburn CG, Beglin SJ. Assessment of eating disorders: interview or self-report questionnaire? *Int J Eat Disord* 1994;**16**(4):363–70.
15. Hilbert A, de Zwaan M, Braehler E. How frequent are eating disturbances in the population? Norms of the eating disorder examination – questionnaire. *PLoS ONE* 2012;**7**(1):e29125.
16. Herpertz S, Kielmann R, Wolf AM, Langkafel M, Senf W, Hebebrand J. Does obesity surgery improve psychosocial functioning? A systematic review. *Int J Obes* 2003;**27**(11):1300–14.
17. de Zwaan M, Enderle J, Wagner S, Mühlhans B, Ditzen B, Gefeller O, et al. Anxiety and depression in bariatric surgery patients: a prospective, follow-up study using structured clinical interviews. *J Affect Disord* 2011;**133**(1–2):61–8.
18. Peterhänsel C, Petroff D, Klinitzke G, Kersting A, Wagner B. Risk of completed suicide after bariatric surgery: a systematic review. *Obes Rev* 2013.
19. Zanarini MC, Frankenburg FR, Reich DB, Fitzmaurice G. Attainment and stability of sustained symptomatic remission and recovery among patients with borderline personality disorder and axis II comparison subjects: a 16-year prospective follow-up study. *Am J Psychiatry* 2012;**169**(5):476–83.
20. Leichsenring F, Leibing E, Kruse J, New AS, Leweke F. Borderline personality disorder. *Lancet* 2011;**377**(9759):74–84.
21. Rudolph A, Hilbert A. Post-operative behavioural management in bariatric surgery: a systematic review and meta-analysis of randomized controlled trials. *Obes Rev* 2013;**14**(4):292–302.
22. Nelson DW, Blair KS, Martin MJ. Analysis of obesity-related outcomes and bariatric failure rates with the duodenal switch vs gastric bypass for morbid obesity. *Arch Surg* 2012;**147**(9):847–54.
23. Kalarchian MA, Marcus MD. Management of the bariatric surgery patient: is there a role for the cognitive behavior therapist? *Cogn Behav Pract* 2003;**10**(2):112–9.