

ORIGINAL ARTICLE

Medicine Science 2018;7(2):249-51

Abnormal eating attitudes and the level of impulsiveness in morbid obese patients who are candidates for bariatric surgery

Lale Gonenir Erbay, Pelin Bozkurt

Inonu University Faculty of Medicine, Department of Psychiatry, Malatya, Turkey

Received 15 November 2017; Accepted 23 November 2017

Available online 12.12.2017 with doi: 10.5455/medscience.2017.06.8782

Copyright © 2018 by authors and Medicine Science Publishing Inc.

Abstract

Obesity is a chronic disease needs to be investigated not from the biological point of view alone, as it also has medical and psychological outcomes. While evaluating obese patients, we come across many psychopathological conditions. The present study aimed to investigate abnormal eating attitudes and the level of impulsiveness in morbid obese patients undergoing bariatric surgery. The present study comprised a total of 60 subjects, of whom 30 were morbid obese patients presented to the Inonu University School of Medicine, Department of General Surgery for bariatric surgery and remaining 30 were healthy controls. The participant's abnormal eating attitudes were measured by "Eating Attitudes Test", and the level of impulsiveness was measured by "Barratt Impulsiveness Scale (BIS-11)". Comparing morbid obese patients with the control group, no significant difference was determined in terms of age ($p=0.712$). The score of abnormal eating attitudes test was significantly higher in the morbid obese patient group as compared to the control group ($p=0.00$). However, there was no difference between the groups in terms of the scores of Barratt impulsiveness scale ($p=0.242$). Individuals' eating habit is one of the factors considered to be important for the start and maintenance of obesity. Moreover, high level of impulsiveness as well might be an important factor for the development of morbid obesity. However, in the present study, no statistically significant difference was determined between the groups despite higher scores of the patient group vs. the control group indicating the level of overall impulsiveness. Psychotherapeutic interventions focusing on impulsive characteristics and abnormal eating attitudes of the morbid obese patients might be helpful in medical and surgical treatments of these patients.

Keywords: Morbid obesity, impulsiveness, eating attitudes

Introduction

Obesity, according to the World Health Organization reports, is a public health problem with rapidly increasing prevalence both in the developing and developed countries [1]. Its incidence has increased in the last two decades in many countries. Obesity is defined as a disease occurring due to excessive fat accumulation in the body and that needs to be treated [2]. The diagnosis is made based on the body mass index (BMI). In addition to genetic susceptibility, social, cultural, emotional and dietary factors as well play a role. In the recent years, the relationship between obesity and impulsiveness has begun attracting the researcher's attention. Impulsiveness is associated with rapid decision making, loss of control, lack of premeditation, indetermination, and sensation seeking behavior [3]. In the literature, the studies investigating the relationship between obesity and impulsiveness have generally focused on females, children, obese patients with binge eating disorder, and patients with eating disorder.

Some studies propounded that impulsiveness has significant impact on the recurrences during obesity treatment [4]. If impulsiveness

Sis a predictor of recurrence and/or treatment discontinuation in obesity treatment, then it is important to identify this situation in the patients. Moreover, studies reveal that abnormal eating attitudes, such as binge eating disorder, are more prevalent among subjects displaying impulsive behaviors [5]. For this reason, the present study aimed to investigate the level of impulsiveness and abnormal eating attitudes of morbid obese patients.

Material and Methods

The present study was conducted in 30 morbid obese patients with $BMI \geq 40$, who presented for the first time to Inonu University School of Medicine, Endocrinology Polyclinic between December 2016 and June 2017 for the treatment of their obesity, and in age- and gender-matched 30 healthy subjects with $BMI < 30$. These patients, who had been referred to the psychiatry polyclinic by endocrinology polyclinic for routine pretreatment psychiatric evaluation, were informed about the study protocol and evaluated by a psychiatrist after obtaining the written consents of the subjects. Study inclusion criteria for both the patients and the control group were determined as following: being over the age of 18 years, being literate, and having no medical or psychiatric disease that poses an obstacle to understand the scales.

In addition to the Barratt Impulsiveness Scale-11 (BIS-11) used

*Corresponding Author: Lale Gonenir Erbay, Department of Psychiatry, Faculty of Medicine, Inonu University, Malatya, Turkey
E-mail: lalegonenir@hotmail.com

to assess the level of impulsiveness of overall study group, sociodemographic data form structured by the researchers and abnormal eating attitudes test were also given.

Barratt Impulsiveness Scale-11 (BIS-11): It is a self-report scale used to assess impulsiveness [6]. It has subscales of inattentiveness, motor impulsiveness and non-planning. High total BIS-11 scores indicate higher level of impulsiveness. Turkish validity and reliability of BIS- 11 was done by Güleç et al.[7].

Eating Attitudes Test (EAT): was used to assess the eating attitudes and behaviors of the participants. It is a 40-item, self-report scale. In addition to the patients with eating disorder, it is also used for the screening and evaluation of eating attitudes. High scores indicate impaired eating attitudes. In Turkey, factor structure and reliability analyses were done for this scale [8].

Statistical Analysis

While evaluating the study data, “SPSS (Statistical Package for Social Sciences) for Windows 17.0” package program was used for the statistical analyses. Suitability of variables for normal distribution was analyzed using Shapiro Wilk test. Comparison of numerical variables between two groups was done by student’s t test for the variables distributed normally and by Mann-Whitney U test for the variables distributed not normally. Chi-square test was used for the comparison of categorical variables. The limit of statistical significance was predetermined to be 0.05.

The study was designed in accordance with the Declaration of Helsinki.

Results

Statistical analyses revealed that the mean age was 33.56 ± 10.68 years in the patient group and 34.40 ± 6.08 years in the control group with no significant difference determined between the groups ($p=0.418$). There was significant difference between the BMIs of the groups (Table 1).

Table 1. Comparison between the patient and the control groups in terms of variables and the scores of scales

	Patient N=30	Control N=30	P value
Age (mean±SD)	33.56±10.68	34.40±6.08	0.712
BMI (mean±SD)	43.67±4.77	24.95±2.42	0.000
Female/Male	22/8	22/8	>0.005
Eating attitudes score median (min-max)	28.50 (8.00-56.00)	13.00 (4.00-29.00)	0.000
Barratt impulsiveness score median (min-max)	60.00 (41.00-80.00)	56.00 (46.00-81.00)	0.242

Analyses evaluating the scores of scales determined statistically significant difference between the patients and the control group in terms of abnormal eating attitudes ($p=0.00$). Scores of Barratt impulsiveness scale showed no difference between the groups ($p=0.242$).

Discussion

The present study investigated the relationship between eating attitudes test and the level of impulsiveness among patients who were in search of treatment for their obesity. Obviously, certain genetic, hormonal and environmental factors have impact on obesity. However, in the present study, higher scores for abnormal eating attitudes in the morbid obese patient group compared with the control group supports the comorbidity of morbid obesity and eating disorder, which is a psychiatric disease. It is thought that obese subjects are fixated in the oral stage of their psychosexual development, and some theories defend that fixation in this stage is associated with the personality traits like extreme optimism or pessimism, hyperphagia, ambition, addiction, and eagerness [9]. Nevertheless, it is difficult to identify the reason for this psychopathology as well as to say whether eating disorder is a cause or an effect.

A part of eating disorders has been associated with impulsiveness. Impulsive behaviors were found to be more prevalent in women with binge eating disorder as compared to the women without binge eating disorder [5]. It is stated that impulsive subjects are unable to control their eating behavior [10]. There are authors considered impulsiveness, in such a case, as a predictor for treatment discontinuation [10]. However, in the present study, no statistically significant difference was determined between the two groups although the total score indicating overall impulsiveness was higher in the patient group. This might be associated with limited patient number; which is the limitation of the present study. For this reason, further studies that would be performed in larger patient population may help us with understanding the impulsiveness as the predictor of response to treatment and the focus of psychotherapeutic intervention. In addition, literature review demonstrates that the relationship between impulsiveness and obesity has been studied mostly in the obese patient groups. Studies performed in morbid obese patient groups are limited in number. The studies focusing on the subgroups of obesity separately would be critical in determining the common points and differences among the subgroups.

Taking abnormal eating attitudes and impulsiveness into account in morbid obese patients and implementing psychotherapeutic interventions for these problems may help with medical and surgical treatments of such patients.

Competing interests

The authors declare that they have no competing interest.

Financial Disclosure

The financial support for this study was provided by the investigators themselves.

References

- Solomon CG, Manson JE. Obesity and mortality: a review of epidemiological data. *Am J Clin Nutr*.1997;66(4 Suppl):1044.-50
- Pi-Sunyer FX. NHLBI Obesity Education Initiative Expert Panel of the identification, evaluation, and treatment of overweight and obesity in adults- the evidence report. *Obes Res*.1998;6:51-209.
- Crépin C, Carrard I, Perroud A, Van der Linden M, Golay A. Managing impulsivity in obesity with problem solving. *Rev Med Suisse*. 2010;6(231):46-50.
- Nederkoorn C, Jansen E, Mulken S, Jansen A. Impulsivity predicts treatment

- outcome in obese children. *Behav Res Ther.* 2007;45(5):1071-5.
5. Nasser JA, Gluck ME, Geliebter A. Impulsivity and test meal intake in obese binge eating women. *Appetite.* 2004;43(3):303-7.
6. Patton JH, Stanford MS, Barrat ES. Factor structure of Barrat Impulsiveness Scale. *J Clin Psychol*, 1995;51(6):768-74.
7. Güleç H, Tamam L, Güleç MY, Turhan M, Karakuş G, Zengin M, Matthew S. Stanford. Psychometric properties of Turkish version of BIS-11. *Klinik Psikofarmakoloji Bülteni*, 2008;18:251-8.
8. Aydemir Ö, Köroğlu E. (Ed.). *Psikiyatride Kullanılan Klinik Ölçekler* (6. Baskı) Ankara: Hekimler Yayın Birliği; 2012.
9. Odağ C. *Nevrozlar-1*. İzmir: Halime Odağ Psikanaliz ve Psikoterapi Vakfı Yayınları, 1999:27-36.
10. Hjordis B, Gunnar E. Characteristics of drop-outs from a long term behavioral treatment program for obesity. *Int J Eat Dis.* 1989;8:363-8.