DEVELOPMENT OF BULIMIA NERVOSA AFTER BARIATRIC SURGERY IN MORBID OBESITY PATIENTS

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SUMMARY

Obesity is a chronic disorder that calls for a multidisciplinary approach. Bariatric surgery is one option, usually at the end of different alternatives.

Bariatric surgery offers good results, but that depends on the selection of the patients after a careful evaluation. Part of this evaluation consists of psychiatric and psychological examinations. The main goal of these is to determine if there are any disorders that may interfere with the adherence to the post-surgical treatment. Some of the disorders which may result in a disqualification of a patient are the following: psychosis, mental retardation, dementia, drug dependence, severe personality disorders and severe eating disorders. This article includes three case studies of obese patients who underwent bariatric surgery and developed bulimia nervosa a short time after the surgery.

First case

Claudia is a Catholic, single, 33-year old woman from Mexico City. She was admitted to INCMNSZ in 1997 with a diagnosis of morbid obesity and obesity-associated pneumopathy. A psychiatric evaluation performed then showed impulsive and aggressive behavior, lack of tolerance to frustration, and a possible borderline personality disorder. In June 1998, bariatric surgery was performed. The first year after the surgery, she had a dramatic weight loss of 50 kg. Concomitantly, she developed epigastalgia, frequent vomit, anxiety, insomnia, feeling of hopelessness, and sadness.

She also began to self-induce vomiting and taking laxative substances, without adherence to a diet or nutritional indications. She went on binges which consisted mostly of forbidden carbohydrate-rich meals. Two years after bariatric surgery, in a subsequent psychiatric evaluation, she had gained 9 kg. She was prescribed paroxetine 20 mg/day and underwent psychotherapy for 18 months, with some improvement. She dropped her treatment and persisted on the bulimic pattern, without any family support.

Second case

Beatriz is a 30-year old married, Catholic, female medical veterinarian with no family history for psychiatric disorders or obesity. At 22 she manifested low self-esteem, easy crying, insomnia, death ideation, and binges without compensatory behavior. She gained 23 kg in one year. In 1994, she was admitted to the obesity clinic of INCMNSZ and was put on a diet without good adherence. She was examined for the first time at the psychiatry department in November 1998, and delusions about damage and reference were then detected. She showed autoagressive behavior, adynamia, asthenia, and auditory hallucinations. She was referred to the Instituto Nacional de Psiquiatría Ramón de la Fuente (INPRF), as an inpatient. She underwent bariatric surgery at the INCMNSZ in May 1999, with a total weight loss of about 38 kg by the end of the first year after the operation. About the same time, she resumed chocolate binges (1 kg/ per binge) and posterior vomiting. She felt guilty and angry. In February 2001, she carried out a new suicidal attempt with a knife, and was admitted once again in a psychiatric hospital. Seven sessions of electro-convulsive therapy were administered because of the severity of the suicidal ideation. She improved and was discharged and prescribed paroxetine 30 mg/day, lorazepam 1 mg at bedtime and risperidone 2 mg/day.

Third case

Rocío is 29-year old married, Catholic female with high school level. There was no personal history of drug abuse and she had no family history of psychiatric disorders or obesity. She was an overweight child and during her adolescence she put on more weight, which she associated to her bad family relationship. She became intolerant, with high levels of anxiety, depression, anhedonia, lack of energy, impulsivity and death thoughts. At 17, she had a suicidal attempt with medications. She did not require hospitalization and recovered at home. From the ages of 18 to 25, she had a weight gain of 30 to 40 kg. After two pregnancies, she had gained a total of 108 kg. In 1998, she had her first band gastroplasty. After that, Rocío had a weight reduction of 30 kg in a six-month period. Nonetheless, six months later she developed feelings of apathy and depression, with sadness, irritability, low energy, anxiety and two or three episodes per week of binge eating followed by vomiting. She is currently on antidepressants and showing bad treatment adherence.

Key words: Morbid obesity, bariatric surgery, bulimia nervosa, eating disorders.

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RESUMEN

La obesidad es una enfermedad crónica que requiere una aproximación multidisciplinaria. La cirugía bariátrica es un recurso extremo ha tenido buenos resultados. La evaluación del paciente que va a ser sometido a este tipo de cirugía es muy importante, en especial en lo que se refiere a la exploración de las posibles alteraciones psiquiátricas.

Las alteraciones de la personalidad son frecuentes en el paciente obeso, así como los diagnósticos de ansiedad y depresión. El principal propósito de la evaluación psiquiátrica en el paciente obeso que va a ser sometido a cirugía bariátrica tiene que ver con la detección de factores que pudieran entorpecer la adherencia terapéutica. Algunas de las alteraciones psiquiátricas en que hay una adherencia deficiente, o ausencia de ella, son las psicosis, las demencias, el retardo mental grave, la dependencia a sustancias, la bulimia nervosa y la personalidad limítrofe. Aquí se presenta el reporte de tres casos estudiados en el servicio de psiquiatría, que desarrollaron bulimia nervosa después de una cirugía bariátrica. A pesar de que se les evaluó previamente, desde el punto de vista psiquiátrico desarrollaron un trastorno de la alimentación como complicación posquirúrgica.

Primer caso

Claudia, de 33 años, originaria y residente del D.F., pasante de derecho, católica y soltera. Su sobrepeso se inició desde la infancia y se acentuó cuando tenía 10 años de edad. Por ello se sometió primero a varias dietas, así como a un tratamiento de hormonas tiroideas; posteriormente siguió un tratamiento de acupuntura, con medicinas homeópata y alópata. Tenía una historia de apego deficiente a los tratamientos, una ingesta de medicamentos superior a lo indicado, una conducta agresiva e impulsiva, una ingesta compulsiva de alimentos y malas relaciones personales.

Ingresó en 1997 al Instituto Nacional de Ciencias Médicas y Nutrición Salvador Zubirán (INCMNSZ), con un diagnóstico de obesidad mórbida y neumopatía del obeso. En el mismo año fue valorada en psiquiatría por problemas de relación, impulsividad, agresividad, mal apego terapéutico y baja tolerancia a la espera. En junio de 1998 se sometió a una gastroplastía en banda. Durante el primer año posterior a la cirugía, su peso se redujo hasta 95 kg. Esta reducción se presentó acompañada de dolor epigástrico, vómito, ansiedad, insomnio, sentimientos de desesperanza, tristeza, llanto, problemas laborales, irritabilidad, minusvalía, conductas purgativas como provocarse el vómito, toma de laxantes sin apegarse al plan de alimentación, sin ejercicios, y con un consumo excesivo de alimentos. Por todo lo anterior, su peso se incrementó hasta 104 kg. Tras ser evaluada por el servicio de psiquiatría, se le prescribió paroxetina, pero se negó a tomarla. Entonces fue enviada a psicoterapia fuera del INCMNSZ, a la cual acudió durante 18 meses, pero después la abandonó, según refirió, por falta de recursos económicos y por problemas familiares.

Fue propuesta hace un año para una derivación gastroyeyunal, pero ésta se le contraindicó tras la evaluación del equipo de obesidad, por sus antecedentes conductuales. Actualmente sigue un tratamiento a base de fluoxetina 20 mg, sin acudir a psicoterapia y sin contar con una red de apoyo familiar.

Segundo caso

Beatriz, de 30 años, originaria y residente del D.F., veterinaria, católica y casada.

Su caso se inició cuando tenía 22 años con una depresión mayor, que se manifestó en forma insidiosa. La depresión empeoró al grado de que la paciente presentó minusvalía, desesperanza, llanto fácil, insomnio, ideas de muerte y periodos de atracones sin conductas purgativas, así como un incremento de peso de 23 kg. en un año. Ingresó al INCMNSZ en marzo 1994 y fue sometida a un tratamiento dietético al que se apegó mal. No recibió atención psiquiátrica sino hasta noviembre de 1998, tras de que se le detectaron ideas delirantes de daño y referencia, irritabilidad, heteroagresividad, astenia, adinamia, hiperfagia y alucinaciones auditivas. Por lo anterior fue referida al Instituto Nacional de Psiquiatría Ramón de la Fuente (INPRF), donde fue hospitalizada 21 días y tratada farmacológicamente. Aunque fue dada de alta cuando mejoró, una vez fuera del hospital presentó un mal apego terapéutico, y tuvo cuatro intentos suicidas. Acudió de nuevo al INPRF, donde volvió a ser hospitalizada y reinició el tratamiento farmacológico. Posteriormente, en mayo de 1999, se decide, debido al incremento de su peso a 105 kg., realizarle una gastroplastía vertical en banda, con lo que su peso se redujo 38 kg en el primer año. Después se detectó un apego deficiente de su parte al programa dietético pues, ante el riesgo de volver a subir de peso, dejó de ingerir alimentos. Sólo refiere atracones de chocolate de hasta 1 kg diario, seguidos de culpa, enojo y conductas purgativas que van del uso de laxantes a la inducción del vómito, así como inasistencia a las consultas. En febrero de 2001 la paciente vuelve a intentar el suicidio al lesionarse ambas muñecas con arma punzocortante. Como persistió la ideación suicida, asistió al INPRF, donde fue hospitalizada y se decidió someterla un tratamiento con TEC. Recibió siete sesiones y egresó por mejoría con tratamiento a base de paroxetina 30 mg/día, lorazepam 1mg/día y risperidona 2 mg/día.

Tercer caso

Rocío, de 29 años de edad, casada, escolaridad media superior, dedicada al hogar, católica.

En la infancia sufrió una depresión mayor y a los 17 años intentó suicidarse con medicamentos; no recibió atención médica. De los 18 a los 25 años, su peso aumentó entre 30 y 40 kg, por lo que llegó a pesar 108 kg.; dicho incremento se asoció con sus embarazos. Ingresó al INCMNSZ en junio de 1998, se le realizó una gastroplastía vertical en banda en noviembre del mismo año; el primer año bajó 30 kg. Durante su reducción de peso, presentó exacerbación de síntomas afectivos e ingesta excesiva de alimentos (atracones); posteriormente incurrió también en conductas compensatorias como provocarse el vómito entre tres y cuatro veces por semana, ayunos prolongados de hasta dos semanas, que han requerido atención de urgencias en el instituto por descompensación metabólica. Dicha atención la recibió en septiembre 2000, tras la cual fue referida al INPRF para tratamiento psiquiátrico. Sin embargo, no asistió y posteriormente continuó su atención médica en el IMSS; no ha vuelto a asistir al INCMNSZ. La paciente ha requerido en dos ocasiones hospitalización psiquiátrica por intentos suicidas impulsivos con psicofármacos. Una vez que mejoró, fue dada de alta. Sin embargo, tras su egreso mostró un mal apego terapéutico y continuó provocándose vómitos; también guardaba ayunos prolongados, que la descompensaron metabólicamente. En mayo de 2002 fue hospitalizada en el IMSS por ideación suicida, y se le diagnosticó un trastorno límite de personalidad.

Palabras clave: Obesidad mórbida, cirugía bariátrica, bulimia nervosa, trastornos de la alimentación.

INTRODUCTION

Obesity is regarded as an excess of adipose tissue. It is difficult to define it since help from anthropometric data is required to assess its severity. There have been attempts through several studies to establish the parameters of the degree of obesity. It has been demonstrated that an overweight of more than 20% over the ideal weight is considered as a health risk (5). Morbid obesity is defined as a body mass index (BMI) of more than 35 kg/m^2 (1).

Obesity is one of the leading causes of chronic diseases. Treatment of morbid obesity requires a multidisciplinary approach between internal medicine, endocrinology, surgery and psychiatry (3). The World Health Organization has considered obesity as an important factor in the morbidity of some disorders like cardiovascular diseases, dyslipidemias, diabetes mellitus, cholelithiasis, some types of cancer and psychological impairment (4).

Bariatric surgery is one of the most effective treatments for morbidly obese patients. There are currently three different approaches: 1. restrictive techniques, which include vertical banded gastroplasty, for patients having an excessive food intake; 2. derivative techniques, which include gastric bypass or Y du Roux, which produce partial malabsortion for patients whose food intake consists mainly of sugars; 3. more aggressive techniques including bilio-pancreatic bypass (12, 14, 17, 18).

On another point, research work done on psychiatric disorders and obesity has shown that about 83% of morbid obesity patients (MOP) have some type of personality disorder. The most common personality disorders found were dependent and avoidant personality (6, 8).

Thus, the purpose of psychiatric evaluation of MOP who are candidates for bariatric surgery is to detect: a) MOP with psychiatric disorders that could contribute to the development of obesity (i.e., anxiety); b) MOP with adjustment disorders, and c) MOP who may develop psychiatric problems through the process of weight reduction (13).

In regard to psychiatric evaluation before surgery, the main goal is to detect the possibility of low or absent adherence. Some of the psychiatric disorders linked with a poor outcome in MOP after bariatric surgery and thereby considered as absolute contra-indication are: psychotic disorders, dementia, severe mental retardation, delirium, active drug and alcohol dependence, bulimia nervosa and borderline personality disorder (13). The relative contraindications are mild mental retardation, binge and bulimic eating behaviors and affective disorders (2, 7). It has been shown that MOP most often have affective and anxiety disorders. Stunkar (16) showed that about 50% of the patients who underwent weight reduction had depression and/or anxiety that could interfere with the adherence to treatment. Some other reports show that the development of bulimia after weight reduction in MOP is between 16 and 52% (15, 16). In a study by Guisado (9), obese patients with or without psychiatric disorders were evaluated 18 months after bariatric surgery; it was found that 2.5% of MOP with psychiatric disorders developed bulimia nervosa. Through this study, it is intented to highlight the importance of psychiatric evaluation in MOP before and after bariatric surgery. We present here three brief clinical case studies of patients who underwent bariatric surgery. They had been advised not to undergo the surgical procedure before treating their psychiatric disorders. However, they did not follow that recommendation and therefore put a lot of pressure on the surgical team. An increase of their psychiatric symptoms was observed several months after the surgical procedures.

METHOD

Three patients who developed eating disorders after bariatric surgery were referred to the psychiatric service by the surgical department. A diagnosis of bulimia nervosa was made after the application of the Structured Psychiatric Interview (SCID) for DSM-IV diagnoses in both axis I (major psychiatric disorders) and II (personality disorders). As a part of the assessment process, a psychological evaluation was carried out. Two patients completed the Minnesota Multiphasic Personality Inventory, second edition (MMPI-2). The clinical case studies of all three patients are presented here.

First case

Claudia is a single, Catholic, 33-year old woman from Mexico City. She has pregraduate education in law. Two of her five brothers and fifteen out of twenty of her cousins are obese, and her father was diagnosed with a major depression disorder. She has smoked five to seven cigarettes daily since she was 17. She has been overweight since she was 10 and has gone on several diets and taken thyroid hormones to eliminate overweight. She has a history of poor treatment adherence, inadequate interpersonal relationships, and aggressive and impulsive behavior.

Claudia was admitted to the Instituto Nacional de Ciencias Médicas y Nutrición Salvador Zubirán

(INCMNSZ) in 1997, with a diagnosis of morbid obesity and obesity-associated pneumopathy. A psychiatric evaluation performed that year detected impulsive and aggressive behavior, lack of tolerance to frustration, and a possible borderline personality disorder. In June 1998, without an adequate psychiatric treatment for any of her psychiatric illnesses, bariatric surgery was performed. The first year after surgery she had a dramatic weight reduction of 50 kg. Concomitantly, she developed epigastralgia, frequent vomiting related to some food intake, anxiety, insomnia, feelings of hopelessness, and sadness. She also began to self-induce vomiting and take laxatives. She did not have an adherence to diet or nutritional indications. Binge episodes consisted mostly of forbidden carbohydrate-rich meals.

Two years after bariatric surgery, in a subsequent psychiatric evaluation, she had gained 9 kg. She was on paroxetine 20 mg/day and underwent psychotherapy for 18 months, with some improvement of the afore mentioned symptoms. She dropped her treatment and persisted with the bulimic pattern, without any family support. She fulfilled the criteria for bulimia nervosa according to DSM-IV.

The score of the MMPI-2 suggested the presence of a severe psychopathology with a high T90 in the F scale (psychopathology scale). The depression scale was the highest with a score of T95, which suggested the presence of oppositionism, jactancy, and lack of respect to social rules. Her general profile showed a cyclic pattern of impulsivity, antagonism and lack of interest for the social consequences of her acts, in contrast with an excessive worry about herself with posterior feelings of guilt.

Second case

Beatriz is a 30-year old married, Catholic, female medical veterinarian with no family history of psychiatric disorders or obesity. She has smoked 20 cigarettes daily since she was 15 years old. She has occasional alcohol consumption with two to three intoxications per year.

At the age of 22 she showed low self-esteem, easy crying, insomnia, death ideation, and binges without compensatory behavior. She gained 23 kg in one year. In 1994, she was admitted to the obesity clinic of INCMNSZ and was put on a diet without good adherence. She was examined for the first time at the psychiatry department in November 1998, and delusions about damage and reference were detected. She had self-agression behavior, adynamia, asthenia, and auditory hallucinations. She was referred to the Instituto Nacional de Psiquiatría Ramón de la Fuente (INPRF) as an inpatient. She was hospitalized for 21 days, and risperidone 1 mg/day, amiodipine 5 mg/day and clonazepam 1 mg at bedtime were prescribed.

One month after her discharge, she had four suicidal attempts, two with medication overdoses (anti-depressants and benzodiacepines); she did not know the amount or type of medication that she had taken in each of the attempts. As to the other two suicidal attempts, these occurred by cutting her arms with a knife. The last attempt was on February 26, 1999. She was hospitalized again at the INPRF. There, she was put on medication and discharged after a month.

In May 1999, she underwent bariatric surgery at the INCMNSZ, with a weight reduction during the first year of about 38 kg. About that time she started again on chocolate binges (1 kg/ per binge) and posterior vomiting. She felt guilty and angry. In February 2001, she carried out a new suicidal attempt with a knife, and was admitted once again to a psychiatric hospital. Seven sessions of electro-convulsive therapy were administered because of the severity of the suicidal ideation. She improved and was discharged on paroxetine 30 mg/day, lorazepam 1 mg at bedtime and risperidone 2 mg/day. The improvement continues to date.

An elevation of T100 in the Es and Pt MMPI-2 scales, characteristic of schizotypic personality disorders or psychotic disorders, was found. The personality traits in this profile are: depression, introversion, apathy, and isolation. Patients with this profile are unable to have stable or deep interpersonal relationships and show excessive worry, introspection, dependence and passivity.

Third case

Rocío is a 29-year old married, Catholic, highly educated female. She has no personal history of drug abuse and she had no family history of psychiatric disorders or obesity. As a child she was overweight and during her adolescence she put on more weight, which she associated to her bad family relationship. She became intolerant, with high levels of anxiety, depression, anhedonia, lack of energy, impulsivity and death thoughts. At 17, she had a suicidal attempt with medications. She was not hospitalized and recovered at home. She gained between 30 to 40 kg from the age of 18 to the age of 25. After two pregnancies, she weighed 108 kg.

In 1998, she went through her first band gastroplasty. After that, Rocío lost 30 kg in a six-month period. Nonetheless, six months later she developed feelings

of apathy and depression, irritability, low energy, anxiety, and two to three binge episodes per week accompanied by vomiting. She had strict two to three week dieting periods with both metabolic and water imbalances that made it necessary to treat her in emergency services. She was referred to our service for treatment, but she refused to come. Rocío had two suicidal attempts, both of which required psychiatric hospitalization. She was diagnosed as having a borderline personality disorder, severe major depression and bulimia nervosa. She is currently on antidepressants and has a poor commitment to treatment.

DISCUSSION

The main psychiatric disorders found in these three patients were bulimia nervosa and a borderline personality disorder. None of the three patients who developed bulimia had this diagnosis before the surgery. The development of bulimia after bariatric surgery has been reported previously (10). In all three cases, a personality disorder was diagnosed before the surgical procedure. Thus, a recommendation for psychiatric treatment before surgery was advised, but it was not followed, bringing about the afore mentioned consequences.

Our proposal is that candidate patients to bariatric surgery must be carefully selected as this procedure may not be adequate for them, specially if they have excessively high expectations about the outcome of the surgery. Bariatric surgery is a procedure that should be used only in patients who have developed serious medical conditions secondary to morbid obesity, as well as in those where several medical dietary treatments have been unsuccessful. Among the absolute exclusion criteria for such patients for this surgery are severe personality disorders such as borderline personality disorder, due to emotional instability and impulsivity, which can be manifested as erratic behavior. They have a tendency to react intensively and inadequately to frustration, and are prone to substance abuse and to develop eating disorders. Unreal expectations in regard to the results after the surgery, and a lack of treatment towards adherence, can interfere with its real outcome and alter the results of the procedure.

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