

CASE IN POINT

GASTRIC BYPASS IN AN OBESE PATIENT WITH PARANOID SCHIZOPHRENIA

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As this case shows, the presence of a psychotic disorder doesn't always prevent a patient from making an informed decision about bariatric surgery—or from reaping the medical and psychological benefits.

A host of medical conditions have been associated with overweight and obesity, including hypertension, type 2 diabetes mellitus, coronary artery disease, gallbladder disease, osteoarthritis, and several types of cancer.¹ In addition to the medical toll, excessive weight gain may have a negative impact on social and psychological factors and even lead to functional impairment.^{1,2} Gortmaker and colleagues found that adolescents and young adults (aged 16 to 24) who were overweight were significantly less likely than those who weren't to be married seven years later—

and for the women in the group, being overweight had adverse effects on educational and economic status.²

Weight gain and its medical complications are well recognized potential adverse effects of both conventional and atypical antipsychotic medications.^{3,4} For patients with schizophrenia or other psychotic disorders, therefore, the very medications that ease their psychotic symptoms may be increasing their risk of weight-related problems—both medical and psychological. Individuals with schizophrenia who experience weight gain while taking antipsychotic medications report a poorer quality of life, a reduced sense of well being, and decreased vitality compared to those who do not gain weight.⁵

The tendency for antipsychotic medications to induce weight gain not only raises the risk of obesity for those who rely on them but also can frustrate the patient in the already difficult task of losing weight.⁶ When traditional attempts at weight loss fail repeatedly and weight gain reaches life threatening proportions, it may be appropriate to consider surgical intervention. Determining the suitability of candidates for surgical weight loss intervention is a complex process, however, in which psychological factors play a key role.^{7,8} Since many of these factors may be compromised by serious psychopathology,⁷ providers may be wary of offering this option to morbidly obese patients with psychotic disorders.

Thus far, the data on surgical treatment of obesity in patients

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with schizophrenia and other psychotic disorders is very limited, but a few reports have demonstrated encouraging results in selected patients.^{8,9} This article adds further anecdotal evidence that supports its use as it presents a case of successful gastric bypass surgery in a patient with schizophrenia. Unlike the patients described in previous reports,^{8,9} this patient's psychotic symptoms were not in remission prior to surgery. Moreover, in addition to postsurgical medical improvements, this patient experienced notable psychological benefits related to his schizophrenia.

PATIENT HISTORY

A 42-year-old, male veteran with paranoid type schizophrenia had been a longtime patient of the VA health care system. He had begun to hear derogatory voices at about age 21 while in the military. At the time of his first hospitalization, he had ideas of reference regarding the television, thoughts that people in his unit were after him, suicidal ideation, and thought blocking. He improved considerably with thiothixene 15 mg three times daily but was deemed unfit for further military duty and was discharged. He continued to receive psychiatric care through the VA, though he chose a primary care physician from the private sector.

Over the next 13 years, the patient continued to have auditory hallucinations, visual hallucinations (frightening faces with vivid red eyes), paranoid delusions, and ideas of reference, despite treatment with high doses of conventional antipsychotics—including thiothixene, haloperidol, and fluphenazine. He had frequent suicidal and homicidal ideation, the latter of which was directed to-

ward people he felt had insulted him or intended him harm. Despite these symptoms, he secured a job following discharge from the service and held it for about eight years. Beginning as a janitor, he moved on to more complex assignments, but ultimately returned to janitorial work when he was unable to keep up with the demands of these positions.

Given the failure of conventional antipsychotic medications to control his psychotic symptoms adequately, as well as his development of intractable akathisia from haloperidol, the patient was switched to clozapine at the age of 35. As a result, his akathisia disappeared and his paranoia and hallucinations improved moderately. By no means, however, did he achieve total remission of psychotic symptoms, which he still experienced on a daily basis. Though suicidal and homicidal impulses lessened somewhat, they continued to occur, es-

spicuous, which worsened his paranoia. He made attempts to lose weight by dietary restriction and exercise programs, to no significant avail. His embarrassment about his size and appearance caused him to begin refusing to have his weight measured at routine psychiatric appointments. He also developed diabetes mellitus, for which his private primary care physician prescribed insulin.

In January 2002, when the patient was aged 42, he asked about surgical intervention for obesity at a routine psychiatric visit. He had read about gastric bypass surgery in the lay press and was interested because of his failure to lose weight through dieting and exercise. Based on this history of attempted weight loss and his level of obesity and related comorbidity, he was referred for a surgical consultation. Because gastric bypass surgery was no longer being performed at his usual VA facility, the

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pecially in the context of stressful family situations.

At the time of his discharge from the military, the patient weighed 160 lb. While taking conventional antipsychotics, his weight almost doubled, to about 300 lb. During the time he was taking clozapine, he gained another 85 lb. At this point, his body mass index (BMI) was 54. The patient was disturbed by his large size because he felt it made him dramatically more con-

spicuous, which worsened his paranoia. He was referred to the surgical department of another facility in the same network.

INITIAL EXAM

In October 2002, the patient was evaluated by the surgical department and determined to be a potential candidate for gastric bypass, pending further nutritional and psychological assessment. This was completed in December 2002, after which he was scheduled for sur-

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gery the following month (January 2003).

At the time of his last routine psychiatric visit before the surgery (a few days before the procedure), the patient was still experiencing his usual paranoid delusions and hallucinations. He is able, however, to hide overt evidence of these symptoms, especially around people with whom he is not familiar. This gives him some measure of control over his disease in certain situations and allows him to adapt to and function within his surroundings when the need arises. It is likely that these coping skills helped him in his initial evaluations and during the immediate presurgical and postsurgical periods.

TREATMENT COURSE

The surgeons performed gastric stapling with a Roux-en-Y gastrojejunal anastomosis. The patient had an uneventful postoperative recovery, tolerating remarkably well the vomiting which often accompanied his attempts to eat over the next several weeks.

The patient had continued to take his usual dose of clozapine (675 mg/day) until 24 hours before the surgery. The drug was restarted one week after the surgery at a dosage of 200 mg/day, which was titrated, eventually, to 500 mg/day. Although he experienced an initial exacerbation of psychotic symptoms shortly after the surgery, he gradually returned to his presurgical level of disease control as clozapine was reintroduced and titrated. (It is unclear why he required less clozapine for the same level of symptom control following the surgery, but it may be that the chance to “start over” revealed the sufficiency of a lower dosage).

Over the next year, the patient progressively lost weight, reaching a low of about 240 lb. He has maintained this approximate weight for an additional 30 months now. Significantly, his blood glucose has normalized and he has been able to discontinue his insulin.

Despite continued paranoid ideation and hallucinations, the patient consistently has reported a sense of well-being he has not experienced for many years. He attributes this to his substantial weight loss. He feels that by being leaner he is less conspicuous, reducing his paranoia and making it easier for him to be in public. His new sense of well-being is evident to others. One VA physician who sees the patient intermittently noted, about seven months after the surgery, that he had never before observed the patient to be so “fluid, interpersonally connected, [and] bright,” or to show so much affect (A. Howsepian, MD, written communication, August 23, 2003).

ABOUT THE CONDITION

Recent studies of the long-term outcomes of bariatric surgery indicate sustained weight loss and substantial improvement in medical comorbidities.^{10,11} White and colleagues reported follow-up data on 342 patients from one medical center who underwent gastric bypass between June 1990 and April 2003.¹⁰ After a median follow-up of four years (range, zero to 14 years), weight loss was generally well maintained and there was complete resolution of presurgical type 2 diabetes mellitus, hypertension, or dyslipidemia in 85%, 62%, and 34% of patients with the conditions, respectively.

In Sjorstrom and colleagues’ large, prospective, controlled, 10-

year study of a variety of bariatric surgical procedures, the results also showed substantial benefits.¹¹ Patients who underwent surgical intervention were significantly more likely than the matched controls treated nonsurgically to experience a resolution of diabetes, hypertension, hypertriglyceridemia, and hyperuricemia (but not hypercholesterolemia). In addition, the surgical patients were less likely to develop new-onset diabetes (7% of those in the surgery group versus 24% in the control group). Both weight loss and posttreatment weight maintenance over follow-up were greatest among the surgical patients, who demonstrated weight losses of 23% at two years and 16% at 10 years, compared with losses of less than 1% and 2%, respectively, in the control group.

Candidates for bariatric surgery must be evaluated thoroughly for their suitability. According to clinical guidelines developed for the American College of Physicians, bariatric surgery is an option in patients with a BMI of at least 40 kg/m² whose efforts to lose weight through an adequate exercise and diet program have failed and who have obesity-related comorbidities.¹² Candidates must be able to appreciate the risks of this surgery (including perioperative mortality), have reasonable expectations about outcomes, and be able to adhere to postsurgical requirements and to long-term monitoring of weight and health status.^{6,7}

Given that studies have found high rates of both *Diagnostic and Statistical Manual of Mental Disorders* Axis I and Axis II psychiatric disorders among morbidly obese people,^{7,13} the effect of mental health disorders on candidacy

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for bariatric surgery is an important issue. Schizophrenia is characterized by both psychosis and cognitive dysfunction, either of which might impinge upon a patient's ability to make an informed choice and to adhere to postsurgical care.¹⁴ Data on the ability of patients with schizophrenia to make informed decisions about their treatment are limited,¹⁵ though a few studies have investigated their abilities to make informed decisions to participate in research.^{16,17} Generally speaking, medical literature suggests that there is a wide range of decision making abilities among patients with schizophrenia

Prior case reports of surgical interventions for obesity in patients with psychotic disorders have emphasized the medical benefits from the intervention,^{8,9} adverse psychiatric sequelae,¹⁹ and the effects of surgery on the pharmacokinetics of antipsychotics.²⁰

Lawlor and Rand reported on six patients with schizophrenia who underwent gastric restrictive surgery.⁸ These patients were all free of psychotic symptoms at the time of their preoperative psychiatric evaluation. Most had no major psychiatric sequelae, but one patient became floridly psychotic following the surgery, requiring rapid

who underwent surgical treatment of morbid obesity with those of 165 patients without psychotic disorders.⁹ As in the Lawlor and Rand report, these patients' symptoms were well controlled by antipsychotic medications at the time of the surgery. Three patients underwent duodenal switch, one had a sleeve gastrectomy, and one had conversion of a Silastic ring gastroplasty to biliopancreatic diversion. Their mean weight loss at six months was comparable to that of the control patients.

Not all reports of gastric surgery in patients with psychotic disorders have had such event free recovery periods. In 2000, Kaltsounis and De Leon described an individual with a diagnosis of schizoaffective disorder, bipolar type who became severely manic following gastric bypass surgery, though he experienced no surgical complications.¹⁹

The present case report adds to the limited descriptive literature on the tolerance and outcomes of gastric bypass surgery in patients with psychotic disorders. It supports the notion that a diagnosis of schizophrenia need not automatically disqualify a person for such surgery—even when the patient's symptoms are not fully controlled. Moreover, it highlights the important psychological benefits of weight reduction, quite apart from the important medical consequences. The increase in comfort this patient reported feeling regarding moving about publicly has been associated previously with weight loss following gastric bypass surgery.²¹ To my knowledge, however, this is the first report of such improvement in an individual whose unease in public was related to an interaction between psychotic

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and that the presence of schizophrenia alone does not necessarily render a patient unable to make informed decisions.¹⁵⁻¹⁷ Even among patients with a reduced capacity for decision making, intensive educational interventions may help render them more capable.¹⁵⁻¹⁷ This patient's psychosis did not impinge upon his ability to understand the proposed surgical procedure, to have reasonable expectations of the surgery, or to adhere to postsurgical care. This is in keeping with his schizophrenia subtype (paranoid type), which is characterized by "a relative preservation of cognitive functioning and affect."¹⁸

reintroduction of his antipsychotic medication and six weeks of hospitalization. The authors note that this patient's antipsychotic medication had been discontinued two weeks before the surgery (for unstated reasons), whereas the others had continued their medication until 24 hours prior to the surgery and resumed it without incident 24 to 48 hours afterward. All five patients achieved weight loss within the expected range and experienced improvements in their medical conditions.

More recently, Hamoui and colleagues compared the outcomes of five patients with schizophrenia

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paranoia and a keen awareness of his size.

The experience of this patient suggests that further study of gastric bypass surgery in patients with psychotic disorders is warranted, especially given the limited success of more traditional weight loss interventions in patients who have antipsychotic-related weight gain.²² Before prospective studies of bariatric surgery in patients with psychotic disorders are undertaken, a systematic review of individuals with psychotic disorders and completed gastric bypass surgery from major surgical centers should be undertaken. The handful of existing case reports,^{8,19,20} small studies,⁹ and reports from specialized surgical centers⁷ cited here suggest that, once analyzed formally, the existing preliminary data may be sufficient to help plan such prospective studies and to inform current clinical decision making. At this time, it seems reasonable to recommend that patients with schizophrenia who meet weight and morbidity requirements for bariatric surgery candidacy be assessed thoroughly with regard to cognitive dysfunction and psychosis, and that intensive educational interventions may be needed to enable these patients to make an informed decision. ●

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