

The Effects of Roux-en-Y Gastric Bypass Surgery on Body Image

Kimberly Neven, MS, RN, C¹; Maureen Dymek, PhD²; Daniel leGrange, PhD²; Heidi Maasdam, RD, LD, CNSD³; Annette C. Boogerd, MS, RD, LD³; John Alverdy, MD¹

¹Department of Surgery, ²Department of Psychiatry, and ³Department of Nutrition Services, The University of Chicago Hospitals, Chicago, IL, USA

Background: Numerous studies examine the physical effects of Roux-en-Y gastric bypass (RYGBP) surgery on morbid obesity. However, the effects of this surgery on psychosocial issues such as body image have not been extensively studied.

Methods: This pilot study used a cross-sectional design to examine the effects of RYGBP surgery on patients' perceived body image. Four groups (n=20) were assessed for perceived change in body image at 4 time intervals. These included pre-surgery, 1 to 3 weeks post-surgery, 6-months post-surgery, and 1-year post-surgery, with two measures of body image. One-way ANOVA was applied, with body image measures as the dependent variables, and time since surgery (group) as the independent variable. Planned post-hoc t-tests were applied to assess the differences between specific groups (pre vs. 1 week, pre vs. 6 months post, 6 months post vs. 1 year post).

Results: Results of the one-way ANOVAs revealed significant improvement on perceptions of body image over time following surgery. Follow-up t-tests revealed that the most significant improvement occurred between pre-surgery and 6 months post-surgery. Although smaller, the change between 6 months post-surgery and 1 year post-surgery was also significant.

Conclusion: While RYGBP results in numerous medical and physical benefits, this study reveals that there are also dramatic improvements in perceived body image, demonstrating the impact of this surgery on a patient's psychosocial health.

Key words: Body image, morbid obesity, bariatric surgery, Roux-en-Y gastric bypass

Introduction

Obesity has reached epidemic proportions in the United States. Recent investigations suggest that the causes of obesity involve a complex interplay of genetic, environmental, psychological, endocrine, metabolic, cultural, and socioeconomic factors.¹ There are a variety of medical and surgical alternatives for the treatment of obesity in the literature. There are also numerous studies that look at the physical effects of morbid obesity and the results of treatment alternatives. However, the effects of the Roux-en-Y gastric bypass (RYGBP) surgery on various psychosocial issues such as body image are lacking. The purpose of this study was to identify the effects of the RYGBP surgery on patients' perceived body image.

Body image represents an individual's subjective experience with his or her body and the manner in which he or she organizes an experience.² Disparagement of the body image is a common problem of morbidly obese persons.³ Disturbance in body image may range from "gross depersonalization...through distorted thoughts and feelings about the body, to distorted perceptions..."⁴

Morbid obesity represents a psychological challenge for individuals. Serious consequences of morbid obesity are well documented as well as

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Reprint requests to: Kimberly Neven, MS, RN, C, The University of Chicago – Department of Surgery, 5841 South Maryland Ave., MC 6090, Chicago, IL 60637, USA. Fax: (773) 834-0201; e-mail: kneven@surgerybsd.uchicago.edu

psychosocial disturbances, such as body image disparagement, depression, low self-esteem, prejudice and social bias.⁵ Co-morbidities are expensive to treat and essentially difficult to cure unless the person loses a significant amount of weight.⁵ Approximately 280,000 annual deaths are estimated to be attributable to obesity in the United States.¹

The option of surgical treatment should be offered to individuals who are well informed, motivated, have acceptable operative risks, and have a history of failed conservative treatments.⁶ The individual should also be able to participate in psychological treatment and long-term follow-up, to help in the adaptation process of their weight loss. A decision to elect surgical treatment requires an assessment of the risks and benefits in each case.

The treatment goal for morbid obesity would be an improvement in both mental and physical health. This would be achieved by a significant weight loss that would reduce life-threatening risk factors and improve performance of daily living and psychosocial health. Psychological issues have not been extensively studied in obesity treatment programs, despite individuals' beliefs that weight loss will improve psychological well-being. Such studies are necessary to provide patients with realistic expectations of the effects of surgery on psychosocial issues, such as body image.

The overwhelming evidence that obesity has adverse effects on both mental and physical health,⁷ begs a more complete understanding of the psychosocial impact that surgical treatment of morbid obesity has on these measures. Therefore, the aims of this study were to examine the effects of the RYGBP surgery on patients' body image as an essential element to the understanding of the psychosocial benefits that this surgery offers.

Materials and Methods

Research Design

This pilot study used a cross-sectional design to examine the effects of RYGBP surgery on patients' perceived body image. A total of four groups were used: patients before surgery (n=20), patients 1 to

3 weeks post-surgery (n=14), patients 6 months post-surgery (n=24), and patients 1 year post-surgery (n=20).

Subjects

Patients were candidates for surgery if they had a BMI >40 kg/m², or a BMI >35 kg/m² with significant obesity-associated co-morbidities. Each surgical candidate underwent a multidisciplinary evaluation, which consisted of a history and physical examination by a surgeon, nutritional evaluation by a registered dietitian, and psychological evaluation by a clinical psychologist.

The surgical technique involved creation of a 15-ml proximal gastric pouch and creation of a 150-cm Roux-limb. The pancreatobiliary limb was approximately 50 cm (Figure 1). Surgery was performed using both the open (midline incision) and laparoscopic approaches.

Instruments

In addition to a routine medical evaluation where weight was recorded, subjects' body image was assessed at their pre-surgery, 1 to 3 weeks post-surgery, 6 months post-surgery, or 1-year post-surgery appointments. Body Image was measured by using Multidimensional Body-Self Relations

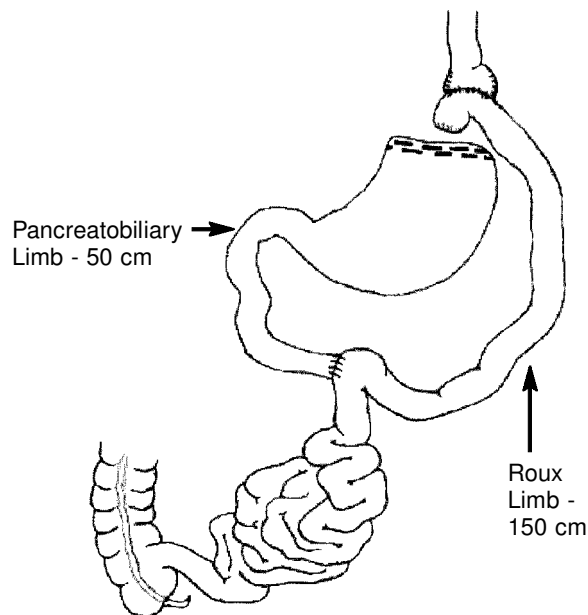


Figure 1. Roux-en-Y gastric bypass technique.