

The Desire for Body Contouring Surgery after Bariatric Surgery

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Abstract

Background Obesity has become far more prevalent over the last few decades. In parallel, bariatric surgery has been increasingly utilized as a method of treatment. This appears to be having an impact on the rate of body contouring surgery for hanging redundant skin after the massive weight loss that usually results from bariatric surgery. Little literature is available addressing how frequently patients who have undergone bariatric surgery receive or desire body contouring surgery or regarding how satisfied these patients are with the hanging skin in certain body areas.

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Methods Seventy individuals (out of 250 who were mailed the questionnaire) who had undergone Roux-en-Y gastric bypass surgery 6–10 years previously completed a questionnaire, which obtained information regarding their experiences with as well as their desire for body contouring surgery and more general body area satisfaction.

Results Thirty three of the seventy patients reported having undergone a total of 38 body contouring procedures. The most common were abdominoplasties (24.3%), breast lifts (8.6%), and thigh lifts (7.1%). However, subjects were not uniformly satisfied with body areas that had undergone body contouring surgery; some found the areas unattractive. The majority of patients, at least to some extent, desired body contouring surgery, often in several areas, most notably the waist/abdomen, rear/buttock, upper arms, and chest/breast.

Conclusion Paralleling the increasing use of bariatric surgery is an increasing desire for body contouring surgery. Most patients desire body contouring surgery after bariatric surgery. However, third party payors usually do not reimburse for such procedures.

Keywords Body contouring · Bariatrics

Introduction

It is now widely recognized that the rate of obesity has increased dramatically over the last few decades [1]. Paralleling the rapidly increasing prevalence of obesity has been an increase in the use of bariatric surgery [2], as such procedures are the only treatments that have a high likelihood of success in engendering significant and lasting weight loss in extremely obese patients. The proliferation of bariatric surgery has also resulted in the increased use of

Table 1 Rate of contouring surgery and insurance reimbursement

	Had contouring surgery	One procedure	> 1 Procedure	Covered by insurance
Lipoplasty	3 (4.3%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Abdominoplasty	13 (18.6%)	4 (5.7%)	4 (5.7%)	8 (47.1%)
Breast lift	5 (7.1%)	1 (1.4%)	1 (1.4%)	2 (33.3%)
Upper arm lift	2 (2.9%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Buttock lift	3 (4.2%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Thigh lift	5 (7.1%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Face lift	2 (2.9%)	0 (0.0%)	0 (0.0%)	0 (0.0%)

body contouring surgery to address the hanging, redundant skin that is often seen after a dramatic weight loss [3].

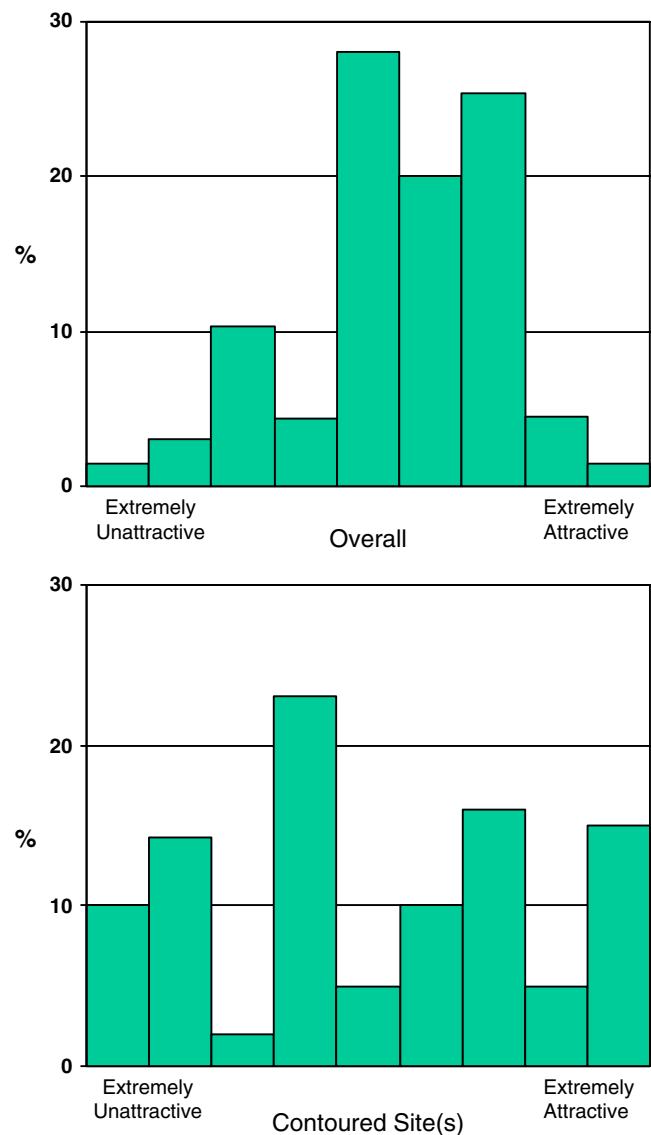
Recently, work has been published outlining how a center of excellence for body contouring after bariatric surgery functions [4]. Work regarding the perioperative management of these patients both pre- and postsurgery has also been published [5]. Our group has previously published a review of psychological considerations regarding the bariatric surgery patient undergoing body contouring surgery [6]. As we summarized in this paper, the factors that motivate the decision to seek such procedures have received little empirical attention.

The surgical literature on this topic has focused on papers examining surgical approaches and surgical management regarding body contouring surgery after bariatric surgery. Some of these have dealt with the topic broadly [3, 7–9]. Other work has dealt with surgery addressing specific body contouring issues, including abdominoplasty [10–12], panniculectomy [13], “body lifts” [14, 15], midbody contouring [16], belt lipectomy [17], jaw line and neck surgery [18], and brachioplasty [19] as well as the so-called “saddle bag” deformity [20].

Research suggests patients experience an improved quality of life and body image when body contouring surgery is used after bariatric procedures [21–24]. However, literature also suggests potential problems. For instance, a study by Rhomberg and Piza-Katzer [25] found that patient satisfaction with the outcome of body contouring surgery was often less positive than the judgment of the surgeon. Sanger and David [26], in a series of 26 patients who had all lost at least 50 lb after bariatric surgery, found that the rate of wound complications was high. Manahan and Shermak [13] found that 20% of 24 patients had “wound problems” and 28% developed a seroma, with only 44% running an uncomplicated course.

A report by Borud and Warren [3] underscored that the desire for body contouring surgery not only reflects cosmetic issues, but many times medical complications and functional impairment as well. These include intertriginous rashes, dermatitis, ulcerations, and difficulty with wound healing and wound care. Also noted were problems with activities of daily living and hygiene secondary to hanging redundant skin.

The present study was designed to examine the use of body contouring surgery, or the desire for such surgery, and current satisfaction with various body areas, in a cohort of individuals who had undergone Roux-en-Y gastric bypass surgery 6–10 years previously at a single center in the midwest U.S.

**Fig. 1** Appearance evaluation

Materials and Methods

This analysis reports data on 70 individuals who had undergone Roux-en-Y gastric bypass six to 10 years previously. Patients were followed up by questionnaires. The response rate was 28% (70 of 250). In this sample, most were Caucasian (97%) and female (84.3%). The mean age at follow-up was 49.9 ± 9.2 years and the mean BMI at follow-up was 34.1 kg/m^2 . The highest mean lifetime BMI was 57.1 kg/m^2 .

Methods

The data were obtained using the Post-Bariatric Surgery Appearance Questionnaire developed for the study. This questionnaire included 50 questions and took approximately 15 minutes to complete focused primarily on cosmetic and

body contouring concerns that arose after bariatric surgery, but also included a section on alcohol consumption, abuse, and dependence.

The mailings were sent from the Department of Surgery at a large midwestern hospital where the patients had undergone the bariatric procedures. A cover letter was included explaining the study as well as a consent form and information about payment for participation.

Results

Of those responding to the questionnaire, 33 patients reported having undergone a total of 38 body contouring procedures. These data are summarized in Table 1. The most common procedure had been abdominoplasty (24.3%), breast lift (8.6%), and thigh lift (7.1%). Five of

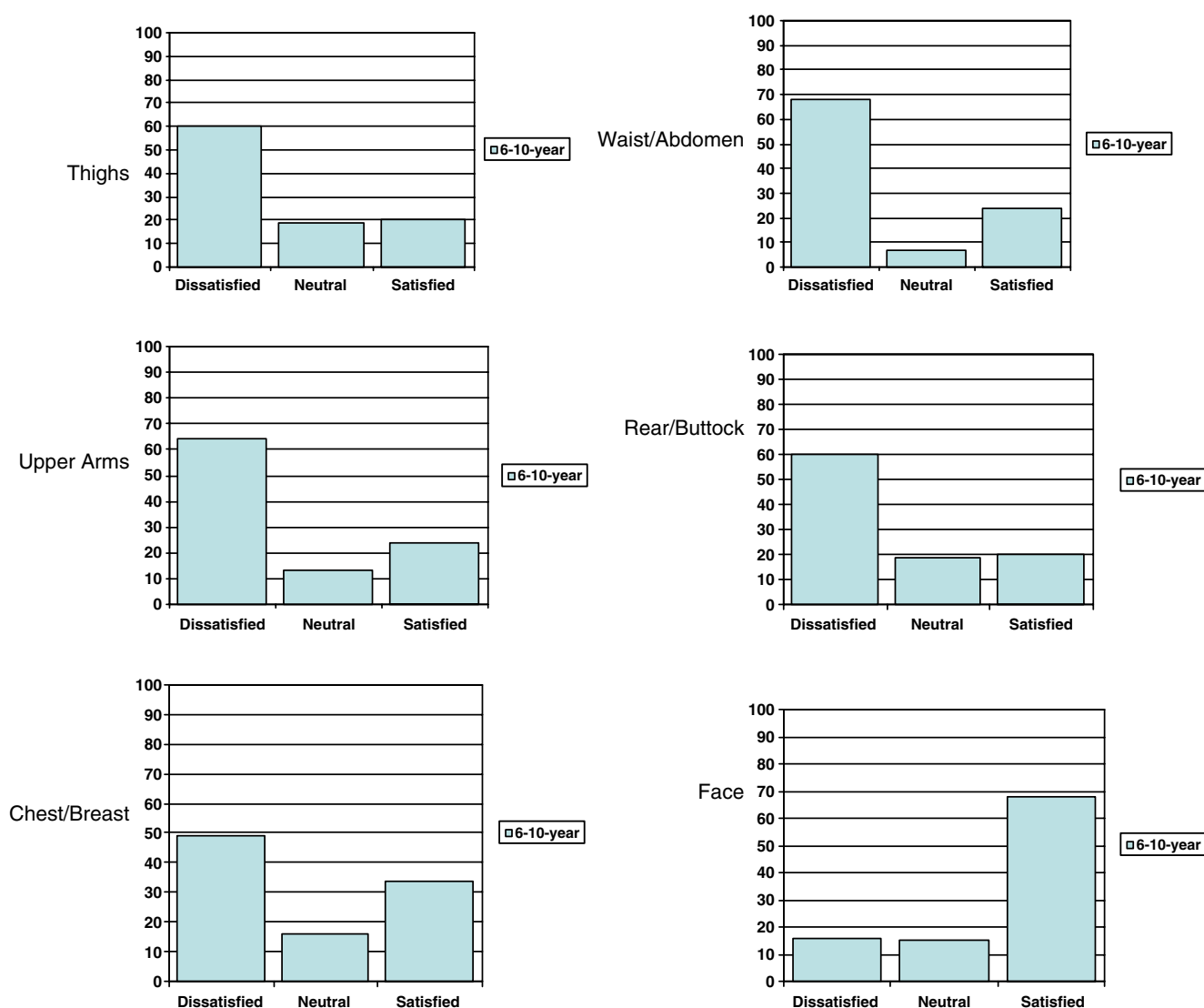


Fig. 2 Satisfaction with hanging skin

Table 2 Desire for contouring surgery

	Want Surgery			
	Do not want	Want somewhat	Want	Want a great deal
Face	45 (67.2%)	9 (13.4%)	0 (0.0%)	4 (5.9%)
Upper Arm	23 (34.3%)	11 (16.4%)	8 (11.9%)	17 (25.4%)
Upper Back	51 (76.1%)	4 (6.0%)	1 (1.5%)	1 (1.5%)
Chin/Neck	39 (57.4%)	9 (13.2%)	5 (7.4%)	6 (8.8%)
Chest/Breast	23 (33.8%)	12 (17.6%)	7 (10.3%)	12 (12.6%)
Waist/Abdomen	17 (25.0%)	11 (16.2%)	8 (11.8%)	18 (26.8%)
Lower Back	46 (67.62%)	7 (10.3%)	3 (4.4%)	2 (2.9%)
Rear/Buttock	32 (47.1%)	10 (14.7%)	7 (10.3%)	11 (16.2%)

the procedures were secondary procedures on areas where previous body contouring had been undertaken.

Patients were also asked on a Likert-type scale from 1 to 9, 1 being extremely unattractive and 9 being extremely attractive, how they would rate themselves overall in terms of their appearance, and second, how they would rate the appearance of the feature or areas on which they had previously had body contouring or cosmetic procedure performed. These data are shown in Fig. 1. Overall subjects tended to rate their appearance either as neutral or as being to some degree attractive. However, in terms of sites that had undergone body contouring surgery, subjects were widely disparate in their responses, but many rated these body areas from neutral to extremely unattractive. These results suggest less than complete satisfaction with the body contouring procedures post-bariatric patients had undergone in terms of the cosmetic outcome.

Patients were also asked to rate their current level of satisfaction with the problem of hanging skin in various body areas, and whether or not they had undergone a body contouring surgery in that area. These data are summarized in Fig. 2. Although, the original question asked subjects to rate each area as from very dissatisfied to very satisfied on a 7-point Likert scale, the three dissatisfaction and the three satisfaction categories are collapsed in this presentation. The results suggest that most patients were satisfied with the skin in their facial area but either neutral or dissatisfied with most other body areas, with particular dissatisfaction noted regarding the thighs, waist/abdomen, upper arms, and chest/breast.

Subjects were also asked whether or not they had a desire for body contouring surgery in certain body areas, if they had not undergone cosmetic surgery already in that area. These data are shown in Table 2. As can be seen, many subjects indicated they desired body contouring surgery in their waist/abdomen area, upper arms, chest/breast, and not uncommonly in other body areas as well. Overall, only 17 participants did not desire any body contouring surgery.

Subjects were also asked whether or not their health insurance had paid for body contouring surgery. Eight

(47.1%) of the 17 abdominoplasties that had been performed, and two (33.3%) of the six breast lifts that had been performed had been paid for by insurance. All the other body contouring procedures had been paid for out of pocket.

Last, subjects were asked whether or not they had trouble with sores, rashes, or skin breakdown currently, or, if they had previously had body contouring surgery, in that area before undergoing the surgery. The areas where the subjects most commonly reported sores, rashes, or skin breakdown were the waist/abdomen area (25%), chest/breasts (19%), thighs (16%), and rear/buttock area (7%).

Discussion

These data suggest that a sizeable subgroup of patients had undergone body contouring surgery at 6–10 years after bariatric surgery and, more it is more striking to note that the majority of these post bariatric surgery patients to some extent desired such procedures, particularly in certain body areas such as waist/abdomen, upper arms, and chest/breast. Therefore, there is a marked disparity between the number of subjects who indicate that they desire such surgery and those who have actually received it. This may be a function of financial resources and coverage from third-party payors.

The data also suggest that subject's evaluations of the sites that have undergone body contouring surgery are mixed, with some finding the areas attractive and some finding the areas unattractive, with much variability. This seems to echo the findings by Rhomberg and Piza-Katzer [24] who found that patient satisfaction with the outcome of body contouring surgery was often less positive compared to the judgment of the surgeon, and speaks to the likelihood that patients' expectations may be unrealistic.

The data further suggest that skin breakdown, with the development of sores and rashes, happens reasonably frequently including in body areas where third-party payors appear not to usually reimburse for body contouring procedures. The vast majority of the procedures that had

been performed had not been paid for by third party payors; therefore, one of the determinants of the discrepancy in the number of those who desire body contouring surgery and those who actually receive it is clearly a lack of third-party payment for such procedures. It is difficult to predict how this might change over time as the number of bariatric surgery procedures increases and concomitantly the desire for body contouring surgery increases.

There are several limitations to this study and to the data reported in this manuscript. First, slightly less than a third of the patients who were mailed the survey responded and therefore we are unable to know whether or not the subgroup that responded was in some ways atypical. One could argue that subjects who experienced body appearance problems would be more likely to participate in this study, but this is speculative. Second, the data were all based on questionnaires rather than interviews and the amount of data collected were limited. Likewise, the study was conducted in an upper midwestern site where the density of plastic and reconstructive surgeons is probably low relative to the population and to where the popularity of such procedures is probably relatively low as well. Also, all the individuals had received bariatric surgery from one surgeon, and this may have somewhat influenced the cosmetic outcome. The surgeries were all done several years ago, and the results may not reflect results that are obtained in bariatric practice. The fact that none of the patients underwent a circumferential lower truncal procedure suggests that the results are not necessarily compatible with current practices.

As the use of bariatric surgery continues to expand, additional research is clearly needed in this area. In particular, prospective studies that include more complete assessment of various possible risk factors for hanging redundant skin and better qualification and quantification of the problem are clearly needed. It seems quite reasonable to characterize the lack of data on this problem as a cause of great concern given the accelerating use of bariatric procedures.

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