Laparoscopic Band Plication for the Treatment of Morbid Obesity

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Morbid obesity is considered a multifactorial disease that results from neurochemical, genetic, and psychological factors. It is considered to be a contemporary disease that inflicts all social classes. In the United States approximately 12 million people are morbidly obese, whereas 3–5% of the American population will develop serious and life-threatening complications related to their obesity.¹

Is Obesity a Disease or a Condition?

In February 1985, it was considered necessary to convene a National Institutes of Health (NIH) Consensus to affirm that obesity is indeed a disease.² Public interest in controlling obesity sells the majority of books in the nonfiction category. The NIH’s goal became the sensitization of the medical profession, especially the general surgeons, who were not willing to accept obesity as a disease, using proof demonstrating the increased morbidity and mortality related to this condition, which affects the cardiopulmonary system e.g., (coronary disease, hypertension, pulmonary insufficiency, sudden death, obesity–hypoventilation syndrome, sleep apnea, Pickwickian syndrome) and also leads to diabetes mellitus, thromboembolism, gallstones and liver disease, susceptibility to infection, esophagitis, increased operative risk, skin problems, pseudotumor cerebri, menstrual disorders, renal disease, osteoarthritis, varicose veins, infertility, urinary stress incontinence, psychosocial incapacity, depression, and cancer risk (e.g., endometrium, breast, prostate, kidney, colon, gallbladder).³

Studies have demonstrated that obese people have an altered social profile and that their social activities are meager.⁴ The social–economic status mainly in females is inversely related with their degree of obesity,⁵ which affects job employment. Sexual activity and behavior are also affected. The increase of body weight causes changes in external sexual characteristics. These individuals assume a generally asexual shape, which differs from the accepted body image, resulting in their social isolation and stigmatization, defined as the obesity stereotype.⁶
Definition

The ideal body weight (IBW) was defined by the Metropolitan Life Insurance Company in 1959. Morbid obesity is usually defined as body weight exceeding the ideal by at least 100–110 lb, as being twice the ideal body weight, or as obesity that approaches those figures but is complicated by major weight-related complications.

The body mass index (BMI) is defined by Kilograms per square meter, and is a good clinical indicator for calculating weight with respect to height. A BMI $< 25$ is considered normal, A BMI $25–30$ is considered overweight, A BMI $> 30$ is considered obese, A BMI $> 40$ is considered morbidly obese.

Treatment

*Nonsurgical Treatment*

This mode of treatment focuses on reduced calorie intake (dieting) and/or increased energy expenditure (exercise). These modalities often are effective for weight reduction in the short term, but recidivism is nearly universal in the morbidly obese.

*Surgical Treatment*

Antiobesity surgery is used when all other conservative modalities have failed in order to avert potential and established complications.

*Historical Aspect of Surgical Treatment*

Approximately 50 years have passed from the initial surgical attempts to treat morbid obesity. There were three main types of operations performed:

1. those that produce a malabsorption state (bypasses)
2. those that restrict intake (gastric restrictive procedures)
3. combination of the two

Malabsorptive Procedures

In the early 1950s, Kremen, Linner, and Nelson studied long-term consequences on the physiology of small bowel metabolism after removal or bypass of portions of the small bowel in canines. They concluded that these procedures could be adapted for the treatment of the morbidly obese.