Long-term outcome of Laparoscopic Roux-en-Y gastric bypass for Treatment of Morbid Obesity

Thesis

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قَالُوا سُبْحَانَكَ
لَا عِلْمَ لَنَا
إِلَّا مَا عَلَّمْتَنَا
إِنَّكَ أَنتَ
الْعَلِيمُ الْحَكِيمُ
صدق الله العظيم
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(٣٢)

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Introduction

In general, obesity occurs when a person's calorie intake repeatedly exceeds the amount of energy he or she expends. Evidence suggests that this imbalance has more than one cause and that the level of obesity varies with genetic, social, cultural, psychological, environmental, and economic influences ***(Oster et al., 2000).***

There are several behavioral changes that are conducive to weight gain. Progressive decline of physical activity with age; injury or life change; snacking and the loss of a formalized meal pattern; frequent consumption of high calorie foods and drinks including alcohol; and high fat diets all contribute to weight increase, especially for young adults as they move into middle age ***(McIntyre, 1998).***

The individual burden of obesity has been defined as the reduction in quality of life, increased morbidity and premature mortality. The societal burden of obesity includes the direct economic costs put on the health care system and the lost output due to reduction in or cessation of productivity ***(Angrisani et al., 2003).***

Over the last three decades, more than ٣٥,٠٠٠ articles related to obesity (with more than ٤٨٠٠ related to treatment) have appeared in research journals, but there is little convincing

evidence that any non-surgical treatment will reliably produce lasting weight loss ***(Oster et al., 2000).***

The uniform failure of non-surgical weight loss programs has led surgeons to devise a variety of weight-loss operations for the morbidly obese. The first surgical procedure, the intestinal bypass, was performed in the ١٩٥٠s ***(Dixon et al., 2000).***

In ١٩٦٦, surgeons initiated the use of gastric bypass procedures when they discovered that weight loss occurred as an unwanted side effect of gastric resection for ulcers and cancer surgery of the small intestine ***(Dixon et al., 2000).***

In the gastric bypass procedure a surgeon directly connects the upper portion of the stomach to a lower segment of the small intestine, bypassing some of the stomach, the duodenum and some of the jejunum. By creating a path for food that goes around part of the stomach and the small bowel, the operation causes food to be poorly digested and absorbed (food malabsorption) ***(Schauer et al., 2001).***

The Roux-en-Y gastric bypass (RGB) is currently the most common bypass procedure. It combines elements of both stomach-restricting and bypass operations ***(Schauer et al., 2001).***

Laparoscopic RYGBP has the advantages of earlier mobilization with less pain in the postoperative period, shorter postoperative hospital stay and sick leave, and a lower risk of incisional hernia than the open procedure ***(Wittgrove & Clark, ٢٠٠٠)***.

Laparoscopic RYGB simultaneously causes food malabsorption and restricts food intake generally results in more weight loss than restrictive operations, including the LAP-BAND System. Patients who have this operation generally lose about two-thirds of their excess weight in ٢ years and within ٣ years they lose ٦٨-٧٢% of excess weight. At ten years, most patients continue to keep off at least ٥٠% of the excess weight ***(Demaria et al., ٢٠٠٥)***.

Morbidity (complications) in the early post-operative Period from wound infection, leaks from staple-line breakdowns, stomal stenosis (a narrowing of the small opening from the pouch to the intestine created by the operation), marginal ulcers, various pulmonary problems and deep thrombophlebitis (clots) may be as high as ٢٠% ***(Oliak et al., 2003).***

Long-term complications include pouch stretching, and breakdown of staple lines. Because gastric bypass operations cause food to skip the duodenum, risks for nutritional deficiencies are higher than for restrictive procedures. Anemia

may result from malabsorption of vitamin B_{12} and iron in menstruating women, and decreased absorption of calcium may bring on osteoporosis and bone disease. Long-term complications may also include deficiencies in vitamins A, D, E, B_1, B_6, and folic acid. Patients must take nutritional supplements daily to manage these side effects ***(Angrisani et al., 2003).***

We will perform a long-term outcome analysis of our experience with laparoscopic Roux-en-Y gastric bypass LRYGB.

Aim of the Work

The aim of this work is to study the long term outcome of Laparoscopic Gastric Bypass for Treatment of Morbid Obesity including, complications, co-morbidities and regaining weight after operation; through a retrospective and prospective study.

Definition of Obesity

Although the word "obesity" is originally derived from the Latin "to overeat", the modern purist's definition is "a disease of excess body fat". This definition is important for two reasons: it unequivocally characterizes the condition as a disease, not a character flaw, cosmetic aberration, or personality disorder, and it associates the disease with body fat, not body weight, desirable weight, or size ***(Klein, ٢٠٠١).***

There is a consensus between international organization and world experts that obesity is a disease of epidemic proportions that impairs the normal function and implies ill-health ***(Campbell and Haslam, ٢٠٠٥).***

Obesity is usually defined using the body mass index (BMI) $= \frac{\text{weight (in kg)}}{(\text{height})^2 (\text{in m}^2)}$, generally speaking, a BMI ≥ ٣٠ kg/m^٢ defines a state of obesity while BMI ≥ ٤٠ kg/m^٢ is defined as sever or morbid obesity ***(Gonzalez et al., ٢٠٠٣)***.

Prevalence of obesity:

What is clear is that levels of obesity have been escalating rapidly especially in the past ٥٠ years. In the UK between ١٩٨٠ and ١٩٩٧, levels of overweight in men increased from ٣٩ to ٦٢% and in women from ٣٢ to ٥٣% and obesity in the same period increased three-fold from ٦ to ١٧% in men and