Human Metabolism 2019: Nutrition management in bariatric surgery- Bulbin Jose, Latifa Hospital

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Abstract:

Bariatric surgery is the most preferred treatment method to help people with morbid obesity to lose weight and balance their health and weight. Bariatric surgeries can be categorised into three parts such as restrictive procedures, malabsorptive procedures and combination (restrictive and malabsorption) procedures. Generally, patients going through restrictive procedures have the least risk for long-term diet-related problems, whereas patients undergoing malabsorptive processes have much risk. In many patients, the privilege of weight loss, such as reduced blood glucose, lipids and blood pressure and increased mobility, will dominate the risks of surgical complications. Most diet-related surgical issues can be prevented by taking a strict eating behaviour guidelines and supplement prescriptions. Eating behavior guidelines covers restricting portion sizes, chewing foods slowly and completely, eating and drinking separately and restraining foods that are barely tolerated. Supplement prescriptions change among practitioners and usually include at least a multivitamin with minerals. Some practitioners may add other supplements only as per need for diagnosed deficiencies, others may prescribe additional prophylactic supplements. The most observed nutrient deficiencies are deficiency of iron, foliate and vitamin B12. Fat-soluble vitamins such as vitamin A, D, E and K have been reported in patients with malabsorption procedures and Thiamine deficiency is also very common among patients with insufficient food intake and/or nausea and vomiting. The diet post bariatric surgery is different from all other diets. So plan the menu on the basis of nutrient requirements and follow that to lead a healthy post bariatric surgery life. Frequent monitoring of nutrition level for all patients who have gone through bariatric surgeries can be helpful in preventing severe clinical deficiencies.

Obesity is one of the major public health issues of pandemic proportions. Overall, ~13% of the world’s adult population (>600 million people) were categorized as obese in 2014. Bariatric surgery is currently the most effective treatment modality for morbid obesity when compared with nonsurgical interventions. The main profits of this process includes prolonged weight loss and enhanced obesity-associated comorbidities and quality of human life. In 1991, the NIH set eligibility standards for bariatric surgery, which included a BMI (kg/m2) ≥40 without coexisting medical problems or a BMI ≥35 with ≥1 severe obesity-related comorbidities, covering type 2 diabetes, hypertension, hyperlipidemia, and obstructive sleep apnea. Several surgical procedures are currently available: laparoscopic adjustable gastric banding (LAGB), laparoscopic sleeve gastrectomy (LSG), laparoscopic Roux-en-Y gastric bypass (RYGB), laparoscopic biliopancreatic diversion with (BPD-DS) or without (BPD) duodenal switch, and single-anastomosis gastric bypass. Laparoscopic bariatric surgery has been practiced since the 1990s and has quickly dominated open surgery in popularity due to its substantially lower risk of wound infection, incisional hernia, venous thromboembolism, and pulmonary complications. The hidden mechanisms of the profitable effects of bariatric surgery are complex and include changes in gastrointestinal anatomy and motility, changes in diet and behaviour, gut hormones [e.g., ghrelin, glucagon-like peptide 1, and peptide YY], bile acid flow, and gut bacteria. Dietitians play a crucial role in the multidisciplinary team pre and post bariatric surgery. Previous observations proved that following a regular nutrition contributes to weight lose after surgery and prevents weight regain. However, this relation controversial. The aim of this narrative review was to summarize the recent scientific literature and to present regulations for nutrition care in bariatric patients to upgrade quality of care, set uniform guidelines, and ensure safe practice. In the past few years, there has been a drastic decrease in the popularity of LAGB due to disappointing long-term results and high reoperation rates secondary to complexities (e.g., slippage, pouch dilatation, dysphagia, and erosion). In Israel, almost 9000 humans with morbid obesity have gone through bariatric surgery in 2014 and LSG was the most common procedure. Right now, the highest number of bariatric procedures as a function of total population (0.14%) have been persisting in Israel. The necessity for bariatric centers to have uniform, evidence-based guidelines and summarized the current scientific literature and expert opinions on the nutritional care of bariatric patients, pre- and post surgery, in order to achieve long-term success and to hinder nutritional and metabolic complications. Some possible issues after bariatric surgery, such as alcohol consumption, smoking, and bezoar formation, still lack sufficient scientific data. Further research will allow the establishment of specific recommendations with regard to these problems.