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## Letter to the Editor

## Revision bariatric surgery: What technical choices should be taken depending on the first intervention?

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 Laparoscopic roux-en y gastric bypass  
 Gastric banding

*Dear Sir,*

Surgical reinterventions in general should be considered in patients after bariatric surgery because of weight gain or because of a defective surgical act which causes clinical problems such as eating disorders like diarrhea or vomiting, GERD, refractory anastomotic ulcers, malnutrition or vitamin deficiency [1].

The following points are important to consider in surgical reintervention:

- (1) It is important to inform these patients that a secondary interventional surgery is more dangerous than the initial act and it can expose the patient to more morbidity, and even mortality [2]. This specific information should be clearly stated in the consent form and it should also be stated in the reply letter to the referring doctor of the patient. Care should be taken not to be too optimistic about the results of the retreatment as the surgeon can be blamed for bad outcomes.
- (2) A psychiatric consultation is crucial. Obesity is a chronic disease in which weight gain is inevitable in some patients. The eating behavior of the patient should be analyzed. Excessive obesity can be a “suffering”. A careful assessment should be made on the “Weight Efficacy” of a patient, and excessive body weight can have harmful effects on comorbidities and repercussions on the daily life of a patient. Some patients may have experienced sexual harassments and may even have suicidal ideas. It is not uncommon that obese patients beg surgeons to operate on them again, and promise to lose weight. Any further intervention should be carefully discussed with the patient or else the patient may regain body weight again rapidly.
- (3) Realistic expectations in obesity surgery. In deciding on a re-intervention, it is important to take into consideration the initial BMI, the current BMI before and the targeted BMI of the patient after re-intervention. It is necessary to assess precariously the risk/benefit ratio of the surgery. A multidisciplinary patient care program should be established. It

is important not to rush into surgery and the real cause of the weight gain should be clarified.

- (4) Should technical choice of re-intervention be dependent on the first intervention?

Following is the discussion on the choice between restrictive intervention or mixed secondary intervention:

- [A] Sleeve Gastrectomy or Gastric Bypass after failed Gastric Banding.

According to the Expert Consensus, either of these two techniques can be chosen. During the reoperation, the gastric band should be ablated.

In special cases of intragastric migration of gastric bands, penetration of the band into the stomach lining happens in 0.1–15% of patients within an average of 43 months. This can often be asymptomatic but weight gain can be alarming. The depths of penetration of the band should be assessed using esophagogastroduodenoscopy. Sometimes a deeply penetrated band can be taken off by a gastroenterologist.

Surgery is not urgent. It is often required and it should be done laparoscopically. The closing system of the band should be studied before the surgery, and it is often found under the liver. The ‘patch’ band should be ablated under the hole of penetration in the stomach. It is advisable to use a contact drain and not to use a Kehr drain because of development of a direct fistulation. To grab and to remove the band, a short gastrotomy should be carried out in a healthy gastric area. The band should be removed without touching the inflammatory area around the gastric band which serves as a foreign body.

Ablation of the band inevitably results in body weight gain and a secondary interventional surgery should be recommended to follow.

Gastric bypass is the intervention of choice but sometimes a partial gastrectomy is necessary. The post-operative outcomes are better if explantation of the band and the redo surgery is done in a single operation. This results in less morbidity, a shorter recovery period with the same expectation in achieving weight loss.

A two-phase surgery should be carried out in patients with intragastric migration of a gastric band because of fibrosis and inflammation which do not allow the creation of an adequate gastric pocket and because of a high risk of fistulation.

It is important not to be too optimistic about the outcomes of the second surgery. Surgeons can usually only achieve the lowest body weight of the patient after the first surgery, but no better.

[B] Conversion of sleeve gastrectomy in gastric bypass or the use of biliopancreatic diversion.

Any weight gain after sleeve gastrectomy is the result of an initial technical error in making the gastroplasty. A failed sleeve gastrectomy can be defined if the weight loss is less than 50% after 18–24 months.

In patients with antral dilatation, surgeons have to be careful about the possibility of gastric motor disability, i.e. gastroparesis. The surgeons should be very careful and not to choose resleeve gastrectomy when there is dilatation of the stomach. Recutting the stomach is technically not easy and can result in complications like fistula, mid-gastric stenosis, or gastric torsion. Resleeve gastrectomy is useful in patients with secondary GERD with a neofundus (i.e. with a lot of gastric tissue left after the first operation next to the angle of HIS). However, gastric bypass is the gold standard to convert sleeve gastrectomy in patients with severe GERD.

In an obese patient with a BMI >50 kg/m<sup>2</sup> and with weight gain after sleeve gastrectomy, it is preferable to do biliopancreatic diversion rather than gastric bypass. However, it is important to verify the technical aspect and the volume left after sleeve gastrectomy before the re-intervention.

[C] Failure of Gastric Bypass.

The principle is to increase the volume of the gastric restriction. A gastroscan should be done to search for a dilated gastric packet [3]. The diameter of the gastrojejunal anastomosis should be assessed. Good results are obtained when the diameter is less than 20 mm. Increasing the restriction to the stomach can enhance dumping syndrome. Banding of the gastric bypass can be done but there is a risk of erosion into the stapling line. It is preferable to implement a second gastric band when the stapling line has healed. Finally, it is technically possible to convert gastric bypass to sleeve gastrectomy.

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## Conflict of interest

The authors declare no conflict of interest.