Abstract

The main aim of obesity surgery is to change the dietary habits of morbidly obese patients. These are patients whose dietary habits nutritionists and psychologists have not been able to change during previous decades. The history of this surgery can teach us many important lessons. For example, procedures that have focused on effecting a malabsorptive state, but without addressing any behavioural mechanism for weight control, such as jejunoileal bypass, have failed. On the other hand, those that have centered on only addressing behavioural issues, the purely restrictive, are also difficult for patients to comply with and also have a high failure rate.

To facilitate a change in the nutritional behaviour of morbidly obese patients which can lead to the loss of an adequate amount of weight, and which could be maintained in the long term is difficult. We need to stimulate changes that can be easily followed by the patient, and at the same time, provoke minimal medium and long term alterations in their nutritional state. To achieve and maintain this aim efficiently, it is necessary that the patients have confidence in and respect the physician, so that they can follow strictly their medical advice.

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Key words: Obesity surgery, bariatric surgery.

Obesity surgery is not really digestive surgery, but it is the surgery of nutritional behavior. This concept is crucial to understand if successful results are to be obtained following such surgery.

A morbidly obese patients is, at the beginning, a normal healthy person who, one day, starts to gain weight. Their weight increases progressively in spite of the measures that they may take in an attempt to control it. Few of these individuals are able to solve their problem by themselves simply by controlling their nutritional intake. This, in essence, is the real origin of morbid obesity.
When they have attempted to follow all the nutritional advice of their relatives, friends, what that they have noted from the press and the media, and have seen many different doctors and have tried medications designed to induce weight loss, they may be advised that the only solution to their problem is surgery.

Fifty years ago, when surgery was proposed for the first time in this regard, the gastrointestinal surgeons performed the surgical procedure they were certain would produce a significant and clinically important weight loss, ie the short bowel syndrome or jejuno-ileal bypass\(^1\). In fact, this really was a digestive and mechanical solution to what actually is a behavioural disease. The results, and substantial complications, of this procedure are well known to everybody.

The experience of these operations and the increasing understanding of the behavioural basis of this condition, underlined the necessity to seek a more physiological and behavioural solution. In particular, the underlying aim of the surgery was to effect a modification in behaviour of the patient by reducing to a minimum the capacity of the stomach and thus limit the patients ability to ingest food. This solution frequently provokes a psychological conflict. This can lead to excessive food intake with repeated episodes of vomiting, the gastric pouch can dilate, the staple line can disrupt and oesophageal reflux can also occur.

So, we change the concept and from patient who can eat everything and also have a short-bowel like syndrome (malabsorption, diarrhoea, etc.) to a patient who cannot eat and with the resulting behavioural changes in nutrient intake. However, this was only the start.

In parallel with these surgical approaches, nutritionist and psychologists tried to produce a behavioural change in the dietary habits of morbidly obese patients: to eat slowly, three time per day, and to avoid eating between breakfast, lunch and dinner. In addition, the patients were educated to eat low calorie foods, etc. We must not forget that this advice was given to individuals with problems in their nutritional behaviour. Subjects with a weak will. So, if one day they were in trouble, they can forget the nutritionists and psychologists advice and can eat as much as they wish. The lack of success of these treatments has been clear to all concerned.

In fact, surgery came to avoid the possibility of interrupting the healthy dietary habits of the patients with problems in their nutritional behavior.

So, the philosophy of bariatric procedures really needs to adapt to the underlying problem that the patient actually has. Therefore, the surgical procedure that is to be carried out needs to be able to create the gastrointestinal conditions that avoid the binge habits of the patients but also allows the patient to have a quality of life comparable to that of normal subjects. A good quality of life for these patients means that food restriction need to be sustainable but adequate for the patient (not an extremely low intake for someone who is used to eating large amounts), with compensations (enough loss of weight) and with none, or minimal, digestive (vomiting, oesophageal reflux, diarrhoea and increased bowel frequency) or experiences symptoms due to deficiencies in key nutrients (eg deficiencies in iron, calcium, proteins and vitamins). That means achieving a gastric pouch large enough to avoid the feeling of not having eaten, is long enough to avoid oesophageal reflux, but yet is still small enough to control the patients weight as is desired. Furthermore, that there is an intestinal absorptive surface that avoids the disturbances provoked by extreme malabsorption, but has been reduced enough to ensure that the patient looses weight and importantly maintains this in the long term.

It seems that these characteristics could be more readily achieved by using gastric bypass procedures (Roux Y, Mini Gastric Bypass\(^2\) or the One Anastomosis Gastric Bypass\(^3\), than by all other procedures that currently are practiced today. Therefore, in 2001, 70% of the patients operated on in the USA for bariatric surgery received a gastric bypass. It is also clear that there is an increasing trend to perform this operation\(^4\).

The facts mentioned above demonstrate clearly that what morbid obese patients ask from surgery is for the appropriate help to change their dietary habits. They need only to change their dietary habits in order to lose weight. Moreover, by loosing weight, they solve all their health, body image and psycho-social problems.

Hence, surgery is just a way to address the underlying problem. In itself, it is not the main mechanism of the underlying problem that the patient has. The type of surgery undertaken for these patients need to be simple, quick and safe. Importantly, though, it achieves what is essential — a behavioural change in the patient. This change is the nucleus of their problem and it is our central task to address this.

It is essential, therefore, that the surgeons involved in this type of surgery need to focus the treatment from the first contact with the patient with this in mind. We must centre the information and explanations regarding the whole treatment process (from the first day to two years hence) as to how the process will change their dietary habits. Following a conductual procedure. Showing them what they need to do and convincing them that following our advice precisely about everything will minimise the problems and will facilitate their weight reduction for them.

The possibility of frequent consultation (by telehore) whenever the patients have concerns or doubts is important in supporting these patients. Further guidance is the most important means available to avoid trouble and achieve success, especially during the first four months after surgery, period in which the main changes will occur.

It is also important to allow the patient to be centred on these nutritional and behavioural changes. In this respect, a precise complementary postoperative prophylactic pharmacological treatment aiming to prevent the postoperative events that follow this type of surgery, plays an important role in achieving success.
Once the new dietary habits are achieved and become second nature for the patient, the possibility of binge events is avoided by the surgical changes to the gastrointestinal tract, weight maintenance then becomes a consequence of the new routine of the previously morbidly obese patient.

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References