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Editorial

Revisional bariatric surgery: on stage!

Cirugía bariátrica revisional: ¡A escena!



Bariatric surgery is a safe and effective treatment that encompasses a set of surgical interventions whose ultimate goal is to improve the overall health of the patient. The primary bariatric techniques have already demonstrated their results in the short, medium, and many also in the long term. Development of these techniques has made it possible to analyse their weaknesses and threats, as well as their benefits, sometimes making it necessary to indicate a second surgery, generically also termed revisional bariatric surgery (RBS). However, RBS has been limited for years to final and limited written sections in treatises, to being the miscellaneous in congresses, the exception in service portfolios, or series that cannot be counted on waiting lists. If we also consider that its complexity circumscribes it, as is logical, to hospitals with accredited experience and a high volume of cases, its projection is also limited. RBS comes in when the patient has not achieved a satisfactory clinical response, whether in terms of weight loss, resolution of comorbidities, or the onset of complications. These patients have a chronic and multifactorial disease, and therefore RBS must form part of their therapeutic pathway and is not exclusively as the result of a direct failure of primary surgery. The latest IFSO survey in 2018 puts the number of reported revisional procedures at around 63,000 (9% of all bariatric procedures) and there is increasing pressure on the care services to perform them.¹

It includes three types of procedures, each with different technical options. Strictly "revision" procedures preserve the anatomy of the primary surgery and are usually performed to revise or repair a complication-inducing area (e.g., marginal ulcer or stricture of the gastrojejunal anastomosis [GJA]). In "conversion" procedures, a new technique is performed over the primary technique; this is the most common form and is almost always indicated when there is weight regain or onset of complications such as gastro-oesophageal reflux disease (GORD). In "reversal" procedures, the original anatomy is restored (especially in cases of severe malnutrition). Seen in this light it seems straightforward, but there is no single reason for a poor or deficient response to primary bariatric

surgery. There are different factors such as the type of surgery, metabolic status, lifestyle, or degree of adherence to post-operative follow-up that directly influence outcome. Therefore, appropriate indications for the different primary techniques should be a priority. Inevitably, the worldwide overexploitation of techniques such as vertical gastrectomy (VG) comes to mind. In this case, the incidence of RBS increases as the follow-up time increases, and publications find between 22.6% and 33% at 10 years of follow-up.² GORD is undoubtedly the Achilles heel of this technique and one of the main indications for RBS, and gastrojejunal bypass (GJBP) is the revision procedure of choice.³ If our goal is to improve weight loss and/or resolution of metabolic comorbidities in patients with a prior BMI ≥ 50 kg/m² in the absence of GORD, the surgical option could be a hypoabsorptive procedure such as DS or SADI (or GJBP if the initial prior BMI is ≤ 50 kg/m²).⁴ In the presence of poor conformation of the primary VG with dilatation of the gastric fundus, absence of GORD, and prior BMI < 50 kg/m², the possibility of re-sleeve appears in the literature, although the evidence is limited and it seems that the onset of gastro-oesophageal reflux will be inevitable.⁵ However, revision GJBP surgery mostly responds to another situation such as weight-loss failure due to anatomical abnormalities due to dilatation of the GJA, dilatation of the reservoir, or a gastrogastic fistula. Non-anatomical causes account for a not inconsiderable 40% of cases requiring a second operation after GJBP and are usually due to disordered eating behaviours. Therefore, multidisciplinary assessment is essential to correctly guide the type of surgical procedure to be performed, as per De Maria in his interesting editorial,⁶ patients who are pickers or eat small amounts of high calorie foods will not benefit from increased restriction unless accompanied by an increase in malabsorption. The patient who overeats, with dilatation of the reservoir or GJA, will probably not benefit from increased malabsorption if the restriction is not corrected beforehand. In revisional GJBP surgery, the most frequently performed procedure is to reduce the size of the gastric reservoir (49.1%), followed by distalisation of the common channel mainly in favour of the

biliopancreatic loop and less frequently of the alimentary loop (30%), and finally stoma reduction (26.4%).⁷ Recalibration of the reservoir is indicated at a GJA diameter greater than 20 mm, and/or dilatation of the reservoir with a volume greater than 120 ml; the most common complication is a gastric leak.⁸

Procedures that are no longer used but that usually require a second surgery include vertical banded gastroplasty (VBG) and gastric banding (GB). Classically, VBG was performed via open surgery, which means that revision surgery involves longer operative times and higher rates of serious complications.⁹ Laparoscopic conversion from VBG to GJBP currently appears to be the gold standard treatment, both for resolving weight-loss failure and to manage functional complications such as GORD.⁹ Conversion to VG appears to entail a high leak rate due to the fragility of the new gastric stapling, as well as a worsening of GORD symptoms, and therefore its use is discouraged.¹⁰ After VBG failure, GJBP and VG are the two most commonly used techniques, although GJBP is considered the surgical procedure of choice as the long-term weight-loss results are better.¹¹

In the process of refining RBS, we cannot leave out the contribution of robotic platform and endoscopic techniques. The advantages offered by robotic platforms are essentially greater precision in the dissection and handling of tissues that have been previously manipulated. A recent study identifies primary VG as a risk factor in outcomes after robotic GJBP, with lower weight loss and a significant increase in hospital readmission.¹² However, cases of robotic conversion to SADI-S and GJBP have also been published with a good weight response and no evidence of differences compared to the conventional laparoscopic approach in terms of morbidity and mortality.¹³ The latest published series comparing laparoscopic and revisional robotic GJBP report shorter operative times and shorter average lengths of stay for the robotic procedure, undoubtedly linked to experience and acquisition of the learning curve.¹⁴ It is clear that there is a tipping point for the robotic platform and its role in RBS although studies with a robust design and from which results can be inferred are lacking. Finally, revisional endoscopic surgery could be a good alternative, together with adjuvant medical treatment, for weight loss in high-risk patients. A recently published consensus still does not agree on its suitability in cases of reduced reservoir size or diameter of the GJA¹⁵; undoubtedly the lack of public funding for many of its procedures is a major limitation to its implementation.

It seems clear, then, that RBS has already come onto the stage, with numerous scenarios to choose from. But there are so many factors to consider that it is logical to think that RBS may represent that Pandora's box that Corcelles et al. described so well in their editorial¹⁶; even so, Greek mythology tells us that at its bottom we find hope, in our case therapeutic hope, which is so necessary for many bariatric patients.

Funding

No funding was received for this research study.

Acknowledgement

We would like to thank the Obesity Section of the AEC and its coordinator Dr MD Frutos for her confidence.

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2173-5077/