

## **SEGUIMIENTO EN CIRUGÍA BARIÁTRICA, ¿PODEMOS MEJORARLO?**

## **FOLLOW-UP IN BARIATRIC SURGERY, CAN WE IMPROVE IT?**

10.53435/funj.00900

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### INTRODUCTION

Obesity is a major global public health problem and its prevalence has been increasing alarmingly in recent years. There is a clear relationship between obesity and certain chronic diseases such as hypertension (HTA), diabetes mellitus (DT2), dyslipemia (DL), ischemic heart disease, obstructive sleep apnea syndrome or the development of some types of neoplasms. This is also associated with a decrease in the quality of life of these patients and a significant increase in health expenditure. Bariatric surgery has been shown to be an effective treatment for morbid obesity by reducing much of the excess weight and improving or resolving the associated comorbidities<sup>(1)</sup>. Several studies have also shown that surgical treatment achieves better results in terms of weight loss than medical treatment for any degree of obesity<sup>(2)</sup>. In the short term, in the case of diabetes mellitus and dyslipidemia, bariatric surgery achieves a very high resolution rate and improves up to 80-90% of the time. In the case of HTA it is somewhat lower, reaching resolution figures of around 50%<sup>(3)</sup>. In the long term, the results are somewhat more disparate and are poorly documented in the scientific literature<sup>(4)</sup>. One of the main limiting factors when evaluating outcomes is the loss of patient follow-up. According to the International Registry of Bariatric Surgery and the Standards Committee, there should be at least 60% follow-up of patients in the first 5 years<sup>(5)</sup> and in most cases these figures are far from reality. The aim of this work is to analyse long-term follow-up in patients undergoing bariatric surgery and where improvements can be made to achieve better results.

### MATERIAL AND METHODS

This is a retrospective cross-sectional study on a sample of 111 patients undergoing bariatric surgery at the Severo Ochoa Hospital in Leganés between 2013 and 2016. The sample consists of 26 men and 85 women with a mean age of 45 years and a mean preoperative body mass index (BMI) of 44. The surgical procedures performed during this period were all performed laparoscopically and were distributed as follows: 49 vertical gastrectomies, 59 by gastric pass and 3 gastric band removal. This paper evaluates the follow-up performed in the consultations by the general surgery and endocrinology services during the 6 years following the surgery.

### RESULTS

During the first year after bariatric surgery, 90% of the patients attended the endocrinology and general surgery consultations; in the second year only 73% of the patients maintained the follow-up in consultation, dropping to 58% in the third year, 42% in the fourth year and 41% in the fifth year. By the sixth year after surgery, only 38% of patients had regular check-ups (Table1), (Figure1).

In Table 2 we analyze these results by differentiating them by the years that have elapsed since the surgery, shown more graphically in Figure 2. In those surgeries performed in 2013, we obtained data from the 6 years after the operation and observed that follow-up in the first year was 86%, decreasing progressively to 59% in the second

year, 59% in the third year, 48% in the fourth year, 41% in the fifth year and 38% in the sixth year of follow-up. If we look at what happened in 2014, we have figures for the 5 years after the surgery and we see how follow-up is 86% in the first year, 82% in the second year and then there is a more striking decrease from the third year with figures of 68%, dropping to 45% in the fourth year and reaching 41% in the fifth year. The results of the interventions carried out in 2015 are similar, reaching 92% in the first year, decreasing to 76% in the second, 53% in the third and reaching 34% in the fourth year of follow-up. Finally, in patients undergoing surgery in 2016 and with shorter follow-ups, we can see that the figures follow the same path as in previous years, obtaining 95% in the first year, 77% in the second year and 34% in the third year.

## **DISCUSSION**

The results presented in this study coincide with others published in the literature where the long-term follow-up of patients undergoing bariatric surgery can be improved in most units.

In the short and medium term, the results are excellent in terms of weight loss, resolution of comorbidities and improvement in the quality of life of patients with morbid obesity. In the long term, the data are somewhat more disparate. In the article by Obeid et al.<sup>(6)</sup>, which analyzes the long-term results above 10 years in patients undergoing gastric bypass, there is a disappearance or improvement of HT by 46%, 46% for LD and 58% for TD2. In 2017, Kothari et al.<sup>(7)</sup> also evaluated the results of long-term gastric bypass and after 8 years of surgery, rates of resolution of comorbidities similar to the Obeid study were described, achieving resolution of DT2 in 46%, HTA in 38% and DL in 49%. Marqueta et al.<sup>(8)</sup> in the year 2020 also analyzed long-term results, but in this case taking into account several surgical techniques and presented figures similar to previous studies with a resolution percentage of DT2 of 73%, HTA of 47% and LD of 75%. Above the age of 10 years, the results obtained will also depend on the correct choice of surgical technique, other factors such as the patient's ability to control their diet and healthy lifestyle habits, and their follow-up to detect possible late complications of the surgical procedure. Burguera in 2011<sup>(9)</sup>, describes that a significant percentage of patients have long-term complications that may go unnoticed, such as nutritional defects and their consequences, gastrointestinal and proctological disorders that also negatively affect the quality of life of these patients and that could probably be avoided with adequate follow-up. Papapietro in 2012<sup>(10)</sup> conducted an analysis of several series published with follow-up after two years and stated that weight gain after bariatric surgery is documented with variable figures ranging from 20 to 87%, with the most relevant factor in this weight gain being the recovery of inappropriate feeding behaviors. Limitations of this study include limited follow-up time. Probably times greater than 6 years corroborate more reliably the results presented in this paper.

## **CONCLUSIONS**

Long-term follow-up in patients undergoing bariatric surgery is a pending issue in many of the centers where bariatric surgery is performed. The good results achieved in the short term after surgery, both in terms of weight and quality of life, make these patients, who are mostly young, forget that this is a long-term process and that without their involvement, weight regaining and the appearance of complications is a fact.

The creation of multidisciplinary units with the collaboration of endocrinologists, surgeons and nutritionists improves these figures by achieving closer treatment with patients and making them aware of the importance of long-term follow-up to achieve better results. This close monitoring, along with the patient's motivation and commitment, are the only means to ensure the long-term success of the surgery.

## **CONFLICTS OF INTEREST**

This job has no conflict of interest

## **BIBLIOGRAPHY**

- 1.- Buchwald H, Avidor Y, Braunwald E, Jensen MD, Pories W, Fahrback K, et al. Bariatric surgery: a systematic review and meta-analysis. *JAMA*. 2004; 292:1724-37.
- 2.- Csendes A, Burdiles P, Papapietro K, Burgos AM. Comparación del tratamiento médico y quirúrgico en pacientes con obesidad grado III (obesidad mórbida). *Rev Med Chile*. 2009;137:559-66.
- 3.- Papapietro K, Díaz E, Csendes A, Díaz JC, Braghetto I, Burdiles P, et al. Evolución de comorbilidades metabólicas asociadas a obesidad después de cirugía bariátrica. *Rev Med Chile*. 2005; 133: 511-6.
- 4.- Martínez-Núñez AE, Gamboa-López OE, Bacardí-Gascón M, Jiménez-Cruz A. Long-term complications and side effects of bariatric surgery: a systematic review. *JONNPR*. 2017;2(9):410-415
- 5.- The Committee on Standards. Standars for reporting results. *Obes Surg*. 1994; 4:56-65.
- 6.- Obeid NR, Malick W, Concors SJ, Fielding GA, Kurian MS, Ren- Fielding CJ. Long-term outcomes after Roux-en-Y gastric bypass: 10- to 13-year data. *Surg Obes Relat Dis*. 2016;12(1):11-2.
- 7.- Kothari SN, Borgert AJ, Kallies KJ, Baker MT, Grover BT. Long-term (>10-year) outcomes after laparoscopic Roux-en-Y gastric bypass. *Surg Obes Relat Dis*. 2017;13(6):972-8.
- 8.- Marqueta de Salas M, Rodríguez Gómez L, Herrera Merino N, Martín-Ramiro J. Evolución ponderal y de comorbilidades a largo plazo en pacientes intervenidos de cirugía bariátrica. *Rev Argent Cirug* 2020; 112(2):165-170.
- 9.- Burguera B, Ruiz de Adana JC. Repercusiones a largo plazo de la cirugía bariátrica. *Cir Esp*. 2012; 90 (5): 275-276
- 10.- Papapietro K. Reganancia de peso después de la cirugía bariátrica. *Rev Chil Cir*. 2012; 64(1): 83-7.