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Review of the quality indicators of a recently created bariatric surgery unit.

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Summary:

The demand for accredited bariatric surgery units has increased in recent years because obesity and its comorbidities are a growing problem in our society. The objective of this study is to evaluate the results of a newly created bariatric surgery unit following the quality criteria of the Spanish Association of Surgeons (AEC) and the Spanish Society for Obesity Surgery (SECO).

A retrospective review of the patients who underwent surgery from February 2017 to December 2018 has been carried out and the data has been compared with the quality criteria of the AEC and the SECO. It has been observed that most of the established recommendations are met, obtaining a morbidity rate of <10% and a mortality of 0%. Regarding comorbidities, their resolution has been observed in> 90% of cases. No revision surgeries have been performed and quality of life has not been evaluated.

With training in specific programs and following the recommendations of experts, the bariatric surgery unit of our center manages to comply with the quality standards established by the AEC and the SECO.

Keywords:

- Bariatric surgery
- Quality criteria
- Training programs

Introduction

Obesity is a growing problem in our society that has associated the appearance of major comorbidities such as cardiovascular problems, diabetes mellitus and increased risk of certain types of cancer, thus reducing the life expectancy of patients (1).

In recent years, the demand for bariatric surgery units in our environment has increased, requiring the accreditation of the professionals who form them and the evaluation of the results obtained. To this end, the Spanish Association of Surgeons (AEC) in collaboration with the Spanish Society for Obesity Surgery (SECO) has recently published quality standards whose objective is to establish "good practices" in obesity surgery (2).

The objective of this study is to describe the results obtained from the evaluation of a recently created bariatric surgery unit following the quality criteria of the AEC and the SECO.

Material and methods

A retrospective review of the patients who underwent surgery was carried out from February 2017 to December 2018.

Follow-up was performed in all patients one month, 3 months, 6 months and one year after the intervention. This follow-up was carried out by surgery and endocrinology, also receiving closer control and advice from the dietetics and nutrition specialist.

The quality standards (AEC, SECO) evaluated were the following (2):

1. Recording and analysis of complications according to the surgical technique used: morbidity rate <10% and mortality rate <0.5%.
2. Resolution of comorbidities following the official criteria of the scientific societies; American Diabetes Association (ADA), American Society for Bariatric and Metabolic Surgery (ASBMS) and the SECO-SEEDO Consensus 2012.
3. It is necessary to incorporate the systematic use of the percentage of total lost weight (% PTP) to express results of weight loss.
4. Bariatric revision surgery should be performed by experienced bariatric surgeons and in expert or accredited centers and institutions (minimum number of 50 cases per year).
5. The use of specific tests on quality of life is recommended.
6. It is recommended that surgeons engaged in bariatric surgery complete specific training programs supported and supervised by the AEC and SECO.

Results

A total of 60 patients are included. The surgeries performed were 55 laparoscopic gastric bypass (BPGY), 4 vertical gastrectomies (GV) and 1 endoscopic gastroplasty (Apollo ®). The mean preoperative BMI was 37. The mean follow-up at the time of the study was 8 months.

1. Recording and analysis of complications:

The morbidity rate was <10% and mortality 0%, with marginal ulcer being the most frequent cause of late morbidity (8.3%). In no case was urgent surgical reintervention necessary for complications in the immediate postoperative period (Clavien Dindo <II).

	RECENT CREATION BARIATRIC SURGERY UNIT	BARIATRIC SURGERY QUALITY CRITERIA
Suture Dehiscence	**0%**	0-6.8%
Anastomosis hemorrhage	**3,3%**	1-9.7%
Marginal ulcer	**8,3%**	0-7,9%
Stenosis	**0%**	0-10%

Table1: Specific morbidity according to surgical technique (gastric bypass – mechanical suture) in a newly created unit compared to the AEC-SECO quality criteria.

Table 1 compares the morbidity rates of our unit against those recommended by the AEC-SECO.

2. Resolution of comorbidities:

Following the recommended criteria, resolution of comorbidities occurred in> 90% of cases. Only 1 patient requires medication to control their blood pressure figures. In patients with OSAS, close follow-up has been carried out in pulmonology consultations with polysomnographic study after surgery.

3. Weight loss:

A total of 34% of total weight lost has been obtained, being the objective according to the criteria established by the AEC and SECO a value greater than 40% after 2 years of the BPGY.

4. Revision surgery:

No revision surgery was performed.

5. Quality of life:

The quality of life of the patients before and after the surgical intervention has not been evaluated using specific tests.

6. Training programs:

The surgeons who make up the unit have followed specific theoretical and practical training programs.

Discussion

The systematic evaluation of a bariatric surgery unit following the recommendations of the SECO and the AEC is essential to carry out an objective analysis of the results obtained in order to establish improvements. Bariatric surgery involves the management of complex laparoscopic techniques that are constantly changing, so the recording of the results obtained helps the continuous learning of surgeons and thus reduces complications for the patient (3,4,5).

The results obtained in the first 60 patients treated in our unit meet the criteria recommended by national scientific societies, with less than 10% morbidity and 0% mortality. Only the rate of anastomotic mouth ulcer in our series (8.3%) is slightly higher than the established standard (0-7.9%). Taking into account that only 60 patients have been evaluated, this difference is of little numerical value. On the other hand, the rates published in literature, reach 16% in some series (6,7).

The average weight loss achieved in our patients was 34%, which is slightly lower than the AEC-SECO recommendation. Given that the follow-up is less than 2 years at the time of the study, it is highly likely that this objective will be met as the follow-up of the last patients operated on is prolonged.

Following the recommendations of the AEC and the SECO, the surgeons who form the bariatric surgery unit of our center have followed the specific training programs and have periodically evaluated the results obtained in the unit. The first surgical interventions were carried out under the tutelage of expert surgeons from our reference hospital, and later patients with BMI <42 as the main limit (mean BMI 37) and without major comorbidities were operated on. From the 2nd year of training there is no BMI limit, but, as recommended by SECO and the AEC, revision surgeries are not currently carried out (minimum requirement> 50 cases per year). The AEC Clinical Guide to Obesity Surgery recommends that newly established ("primary") bariatric institutions avoid surgery in the first 2 years, or at least in the first 50 patients, surgery in super-obese or with significant comorbidities and revision surgery patients (8).

In general, the learning curve for bariatric surgery is considered to be around 100 surgical procedures (9), although this value may vary thanks to the latest advances with the use of 3D laparoscopic cameras (10). In our experience, using conventional 2D laparoscopy equipment with 30º optics, the results obtained so far by the unit in the first 60 surgical procedures meet the quality criteria for bariatric surgery of the AEC and the SECO.

In addition to specific training, according to SECO and AEC guidelines and standards, multidisciplinary management of the patient by a committee of specialists who assess the candidate for surgery as a whole is essential. In our center, all patients are evaluated following a protocol that involves the participation of different professionals who make up the bariatric surgery unit, endocrinologists, nutritionists, digestive doctors, pulmonologists, anesthetists and surgeons. This multidisciplinary approach helps to carry out an adequate preparation of the patient prior to surgery, which is key to facilitating the surgical technique and reducing complications (11,12).

In our implementation as a bariatric surgery unit, we have not systematically carried out a specific evaluation of the quality of life of patients, as suggested in the recommendations of the AEC-SECO (2). We consider that this subjective assessment is important for having a complete perspective of the results obtained. Therefore, the implementation of said assessment through specific and approved questionnaires will be launched from now on.

Conclusion

With training in specific programs, tutoring by a reference unit and following the recommendations of experts, the Bariatric Surgery Unit of our center manages to meet the quality standards established by the AEC and the SECO in its first two years of operation.

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