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EDITORIAL

Bariatric Analysis and Reporting Outcome System (BAROS): Toward the Uniform Assessment of Bariatric Surgery Outcomes

Bariatric Analysis and Reporting Outcome System (BAROS): Para uma Avaliação Uniforme dos Resultados da Cirurgia Bariátrica

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Continuous evaluation of our medical or surgical practice is essential to ensure we are providing high quality care to our patients. Nonetheless, to measure the outcomes of our practice we need to use a standardized and valid method that allows us to monitor our practice and to compare our practice with the practice of others.

The evaluation of results in bariatric surgery is complicated by the lack of standards for comparison, the use of different parameters to report weight loss, and the multiple definitions of success and failure in the literature. Surgeons have traditionally used weight loss as the main postoperative outcome, although it has become very clear that the improvement of medical conditions associated with obesity and the quality of life should be included in the final analysis. Another controversial issue is how to account for reoperations due to complications or unsatisfactory weight loss in the final assessment of results, because many surgeons consider a reoperation as a failure, while others do not.

The Bariatric Analysis and Reporting Outcome System (BAROS) was developed by NIH Consensus Conference panelists at 1998 to answer a need for a standardized method to analyze and report outcomes of bariatric surgery.[1] The system defines five outcome groups (failure, fair, good, very good, and excellent), based on a scoring table that adds or subtracts points while evaluating three main areas: percentage of excess weight loss, changes in medical conditions, and quality of life (QOL). To assess changes in QOL after treatment, this method incorporates a specifically designed patient questionnaire (the Moorehead-Ardelt Quality of Life Questionnaire) that uses simple drawings to offer five options for each of the five QOL questions: self-esteem, physical activity, social life, work conditions, and sexual activity. Complications and reoperative surgery deduct points, thus avoiding the controversy of considering reoperations as failures.

Feedback from its users and additional research prompted some changes in 2009.[2] The updated BAROS includes the percentage of excess body mass index loss, new criteria for the diagnosis of diabetes, and clarifies the concept of its ''improvement.'' The wording and drawings in the quality-of-life questionnaire were modified. A sixth question, analyzing eating behavior, was added, and the scoring key was changed to a 10-point Likert scale, creating the Moorehead-Ardelt Quality of Life Questionnaire II.

The BAROS has been used in many countries since the late 1990s, and proved to be very useful for evaluating and

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reporting the results of obesity treatments, allowing the comparison of the results of different surgical series and surgical bariatric techniques.[3–6,8]

In the work published by Ribeiro et al.[7] in this issue of GE Portuguese Journal of Gastroenterology, authors present preliminary data on the impact of Roux-en-Y Gastric Bypass (RYGB) bariatric surgery on patients from two cities (Goiânia and Rio Verde) in the State of Goiás, Brazil, using the BAROS. This retrospective study included 50 patients over 18 years of age of both genders (with a mean age of 40 years) who had undergone RYGB and had a follow-up of at least 3 months. Prior to surgery, 48% of patients were morbidly obese with a mean weight and body mass index (BMI) of 119.37 ± 18.44 kg and 43.54 ± 5.33 kg/m^2, respectively. Following surgery, these parameters decreased significantly to 78.01 ± 11.06 kg and 28.46 ± 3.61 kg/m2, respectively. With regard to obesity-associated comorbidities, 78% of patients reported having comorbidities, especially hypertension (44%), rheumatism (34%), dyslipidemia (24%) and diabetes (20%). After surgery, the resolution rates were 77, 24, 100 and 100%, respectively, for these same clinical conditions. With regard to QOL, some patients reported feeling better (8%) or much better (92%) after surgery: the majority of these patients reported improvement of their physical activities (64%), social and family activities (66%), working capacity (68%) and sexual interest (68%). By using the BAROS, QOL improvement was classified as failure (2%), good (8%), very good (24%) and excellent (66%). These data are very similar to data of other larger and longer series,[9,10] suggesting that RYGB bariatric surgery has been performed properly in these two Brazilian cities. This is reassuring for patients, surgeons and local health providers.

This study has obviously several limitations which are recognized by the authors: retrospective design, method of selection of patients, small number of included patients and the short follow-up (follow-up longer than 3–5 years is recommended). Thus authors are encouraged to maintain a continuous assessment of the outcomes of their practice to confirm these preliminary data in a larger and longer surgical series. In spite of these limitations, this is the first study of its kind in this region of Brazil and it uses a standardized and valid method to analyze and report the outcomes of bariatric surgery.

The BAROS analyzes outcomes in a simple, objective, unbiased, and evidence-based fashion. It should be generalized allowing the uniform assessment of bariatric surgery outcomes.

Contributors

Juliana M. Costa and João Bruno Soares contributed equally to the manuscript.

Conflict of interest

The authors have no conflicts of interest to declare.

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