

Surgery

Metabolic syndrome after bariatric surgery. Results depend on the technique used

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The objective of the authors of this study was to investigate the evolution of parameters that define metabolic syndrome, after 10 years of follow-up, to elucidate which surgical technique has best results with the least complications.

METHODS

The criteria of the International Diabetes Federation were used to characterize metabolic syndrome. One hundred and twenty-five obese and super-obese patients who underwent vertical gastropasty, 265 obese and super-obese patients who underwent biliopancreatic diversion (Scopinaro procedure and modified biliopancreatic diversion), and 152 patients with morbid obesity who underwent gastropasty with Roux-en-Y bypass (Fobi-Capella), were investigated. All groups were followed-up for 7 years.

RESULTS

Before surgery, metabolic syndrome was diagnosed in 76% of the patients who underwent biliopancreatic diversion, in 53.4% of those who underwent Roux-en-Y bypass, and 78.4% of those who underwent vertical gastropasty. Weight loss was constant during the first two years in all groups. After this period, the biliopancreatic revision group maintained the lost weight. However, an important weight gain was observed in the vertical gastropasty group, especially in super-obese patients. In the group of Roux-en-Y bypass, weight gain was only observed after 5 years of follow-up. Postoperative morbi-mortality was similar in all three groups. Late complications, especially those related to nutrition, were important in those who underwent biliopancreatic diversion.

After seven years of follow-up, metabolic syndrome was present in 6% of patients in the biliopancreatic diversion group, in 30% in the Fobi-Capella group, and 41% in the vertical gastropasty group ($p < 0.05$).

CONCLUSION

According to the results observed in this study, pancreatic diversion is the best technique to resolve the metabolic syndrome; however, it is associated with a high morbidity and, therefore, should only be considered in super-obese patients. In patients with morbid obesity, gastropasty with Roux-en-Y bypass seems to be the best choice, but it should be associated with lifestyle changes. Purely restrictive procedures are indicated only in selected cases.

COMMENTS

The indication of bariatric surgery for the treatment of metabolic syndrome increases constantly, especially due to the poor results from the clinical treatment of this syndrome. We now know that disabsorptive surgeries (Scopinaro) are very effective in the treatment of metabolic syndrome; however, late nutritional consequences are difficult to manage, limiting the indication of this technique. Currently, the Fobi-Capella procedure seems to be the most effective and safe, both for weight loss and treating the metabolic syndrome. We should not forget that we are still far from a definitive treatment for metabolic syndrome, but surgery should be considered as one more therapeutic option in this severe disorder.

REFERENCES

1. Gracia-Solanas JA, Elia M, Aguilera V, Ramirez JM, Martinez J, Bielsa MA *et al.* Metabolic syndrome after bariatric surgery. results depending on the technique performed. *Obes Surg.* 2010; Nov16. [Epub ahead of print]