Abstract

Bariatric surgery can lead to nutritional deficiencies, including those related to bone loss. The aim of this study was to evaluate serum concentrations of calcium, vitamin D and PTH in obese adults before and six months after gastric bypass surgery in Roux-en-Y (RYGB) and evaluate the doses of calcium and vitamin D supplementation after surgery. Methods: Retrospective longitudinal study of adult patients of both sexes undergoing RYGB. We obtained data on weight, height, BMI and serum concentrations of 25-hydroxyvitamin D, ionized calcium and PTH. Following surgery, patients received dietary supplementation daily 500 mg calcium carbonate and 400 IU vitamin D. Results: We studied 56 women and 27 men. Preoperative serum concentrations of vitamin D were inadequate in 45% of women and 37% of men, while in the postoperative period 91% of women and 85% of men had deficiency of this vitamin. No change in serum calcium was found before and after surgery. Serum PTH preoperatively remained adequate in 89% of individuals of both sexes. After surgery serum concentrations remained adequate and 89% women and 83% men evaluated. Conclusion: Obesity appears to be a risk factor for the development of vitamin D. The results show that supplementation routine postoperative was unable to treat and prevent vitamin D deficiency in obese adults undergoing RYGB.

Keywords