Abstract

Weight loss and resolution of comorbidities is well established after modern bariatric procedures, however chronology of glycolipidic biochemical response is still debated. Objective: Aiming to analyze this variable as well as its correlation with food amount and composition, a prospective study was designed. Methodology: Eighty consecutive patients undergoing Roux-en-Y gastric bypass were investigated every three months until one year after surgery. Females only were accepted and variables included general and nutritional course as well as glucose and lipid measurements. Energy intake was documented including percentage of macronutrients in the diet. Results: Surgery was successful with about 71% excess body weight loss at the end of the first year. Mean energy intake on the 4 postoperative quarters was respectively 519.6 ± 306.6, 836.0 ± 407.9, 702.1 ± 313.1 and 868.8 ± 342.8 kcal/day (mean ± SD). Fat intake was initially low but reached 34.1 ± 7.9% of total calories at final measurement. Blood glucose and lipid fractions tended to be borderline or abnormal preoperatively, and favorably changed by 12 months. Consumption of glucose- and lipid-lowering medication significantly diminished, but each of these was still necessary in 6.3% of the group. Correlation between body mass index and also calorie intake versus glucose and lipid measurements was highly significant (P = 0.000). Conclusions: 1) Energy intake after operation was very low; 2) Weight loss proceeded rapidly and correlated with meal pattern; 3) Improvement of glucose and lipid tests was adequate but took several quarters to normalize; 4) Decreased requirements for glucose- and lipid-lowering medication was significant but not absolute; 4) Fat percentage of total calories exceeded 30% at the end of the observation period, despite recommendations to the contrary.

Keywords

Morbid obesity, Bariatric surgery, Diabetes mellitus, Hyperlipidemia, Dietary intake, Macronutrients.