INTRODUCTION

Controversy exists regarding type 2 diabetes (T2D) remission rates after bariatric surgery (BS) due to heterogeneity in its definition and patients' baseline features. The aim of this study is to evaluate T2D remission using recent consensus criteria, according to preoperative characteristics and insulin use.

PATIENTS AND METHODS

Retrospective study from a cohort of 657 BS performed in a single center, between the years 2006-2011, of which 141 (57.4%) women had pharmacologically-treated T2D. Evaluation of anthropometric, clinical and glucose metabolism parameters before surgery and at one-year follow-up.

RESULTS

Table 1. Patients' characteristics according to remission or non-remission of T2D (Buse, et al) and previous hypoglycemic treatment. Values show mean ± SD or number of patients and percentages (%). “Preop” = preoperative; “12m” = 12-month; “BMI” = body mass index; “FG” = fasting glucose; “HbA1c” = glycated hemoglobin; “%EWL” = percentage excess body weight loss at 12 months. p-values are shown for Chi-square test (categorical values) and analysis of variance (continuous variables).

Table 2. Crude odds ratios (OR) and 95% confidence intervals (CI) of preoperative characteristics for prediction of T2D remission.

Table 3. OR and 95% CI for previous insulin therapy and T2D remission, using different models. Model 1: adjusted for age, sex and duration of diabetes; Model 2: adjusted for age, sex and preoperative BMI; Model 3: adjusted for age, sex and preoperative FG; Model 4: adjusted for age, sex and preoperative HbA1c.

CONCLUSIONS

Buse criteria reveal lower T2D remission rates after BS than previously reported. Prior insulin use is a main setback for remission. Longer diabetes duration, lower %EWL, %EWL and baseline C-peptide, higher age and female sex were associated to non-remission.

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