Reviewer's report

Title: Age- and sex-specific effects on weight loss outcomes in a comparison of sleeve gastrectomy and Roux-en-Y gastric bypass: a retrospective cohort study

Version: 3 Date: 8 May 2014

Reviewer: Gian Mauro Manzoni

Reviewer's report:

Major Compulsory and Minor Essential Revisions

Lines 50-54: Please provide some information about the place where patients underwent interventions

Lines 127-129: Please define hypotheses more clearly. A research hypothesis is a clear statement about an association or an effect. If you expected that age, sex and T2D could moderate the effects of procedures, you should have clarified the expectations. If you were not able to clarify any specific expectations, then you should have stated an exploratory aim.

Please define your hypotheses about the moderators more clearly (clarify the expected effects) or state an exploratory aim.

Lines 197-199: Please provide some more information about the standard post-operative timepoints (when, where and who collected weight data?). If repeated measures are equally spaced (baseline, one year and two year follow-up) and no random effect was reported, why did you use multilevel modeling? Marginal means adjusting for any covariate can be easily estimated by a repeated-measure general linear model.

Lines 202-205: this sentence was uncompleted.

Lines 232,238,241: the first two interactions do not include time, while the third one includes time. So, why did you report results in the same manner? If the interaction do not include time, then the effects of procedure, sex and age on weight are not time-dependent because the average of repeated weight assessments is to be considered. Please clarify. Moreover, it is usual to report the model coefficients and their significance when describing the results of a multilevel analysis.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:

I declare that I have no competing interests