



Bariatric or Metabolic Surgery?

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Published online: 13 November 2018

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A just published study carried out in a very large cohort of subjects showed that patients with type 2 diabetes (T2DM) who had five risk-factor variables within the target ranges appeared to have very little or no excess risk of death, myocardial infarction, or stroke as compared with the general population [1]. The relative risk of pathological outcome increases with the increasing number of risk factor variables outside the usual target ranges. However, the estimated explained relative risk showing the association for various risk factor variables to heart failure or to cardiovascular events was very low: in the multiple regression analysis the R^2 values ranged from 0 to 0.015, so indicating that any predicting factor can explain only very little bit of variance [1].

In severely obese patients with T2DM, the surgically obtained weight loss corresponds to an estimated average reduction of 48% in macro vascular risk and 79% in microvascular risk within a 5–10 year follow-up [2]; furthermore, the mortality rate was 70–80% lower in the surgery than in the medical treatment group [3, 4], and the results were very similar to those obtained in other studies comparing the mortality rate after bariatric surgery to conservative treatment among general severely obese patients regardless of diabetic status [5]. Evidently in the surgical cohorts, as concerning death and occurrence of cardiovascular complications, a great deal of variance appears to be explained simply by having undergone bariatric surgery. Therefore, it can be suggested that in severely obese T2DM patients the clinical improvements have to be specifically accounted for more by the surgically obtained stable postoperative weight loss than by the normalization of the blood fasting glucose (FBG) level and T2DM remission.

In this view, any bariatric operation carried out in a not obese T2DM patient with the precise aim to normalize the FBG is useless; since in the uncomplicated T2DM the relative risk of death or cardiovascular events is similar to that of

general population, the clinical status cannot be improved by the normalization of FBG, and a metabolic improvement does not necessarily correspond to a true and actual positive clinical outcome.

For these reasons, we have doubts in still calling bariatric surgery “metabolic” or “diabetes” surgery.

Compliance with Ethical Standards

Conflict of Interest The authors declare that they have no conflict of interest.

Ethical Approval Statement This article does not contain any studies with human participants or animals performed by any of the authors.

Informed Consent Statement Does not apply.

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