What Predicts Diabetes Remission After Bariatric Surgery? Not BMI

By Ruth Kava — December 7, 2015

Bariatric surgery (BS) is probably the most successful means of reducing body weight (and fatness) in obese people. In addition, obese people with type 2 diabetes may also experience remission of their disease after the surgery. The main criterion for eligibility of a diabetic person for some type of BS has been a BMI of at least 35. But a new study recently published in the journal *Diabetes Care* indicates that BMI is not the best predictor of diabetes remission with BS.

Dr. Simona Panunzi from the CNR-Institute for Systems Analysis and Computer Science in Rome, Italy led an international group of researchers who examined records of 727 patients from Sweden and two other randomized trials. Over 400 patients had undergone some type of BS, while about 300 had been treated medically for their type 2 diabetes. Two types of BS were examined those that reduced stomach capacity only, and those that also diverted foods from the small intestine (for examples of each kind, see here). The eligible studies included baseline data as well as data from two years later on.

The investigators found that 65 percent of the patients who underwent surgery had remission of their diabetes, compared to 15 percent of those treated medically. Further, 60 percent of those who had the stomach-reduction only type of procedure had diabetes remission, while 76 percent of those undergoing a diversionary surgery experienced remission. Overall, the patients who did experience remission had lost more weight and reduced their waist circumference more than those who remained diabetic.

Further, they found that characteristics of patients that best predicted successful diabetes remission included:

- a shorter duration of diabetes
- lower fasting blood glucose before surgery
- diversionary type of surgery
- smaller waist circumference at baseline.
These results, the authors suggest, point to an advantage of having BS early in the course of diabetes, with better control of blood glucose levels. These advantages were seen independent of patients' BMI, which indicates that more criteria should be taken into account when deciding a diabetic person's eligibility for BS. They also suggest that patients with BMIs as low as 30 (the lower limit for obesity) should be eligible for BS.


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