## 14 OBESITY

## Gastric Bypass Makes Some Patients Ravenous

## BY BRUCE JANCIN

GRAPEVINE, TEX. — Gastric bypass surgery's status as the gold-standard weight-loss procedure has come under question by new evidence that many recipients develop late, often-unrecognized glucose abnormalities contributing to significant weight regain.

"The gastric bypass has been the procedure of choice, especially for sweet eaters. I think it's time to reconsider. I actually believe that vertical sleeve gastrectomy and duodenal switches that are not severely malabsorptive will be the best operations in the future," Dr. Mitchell S. Roslin asserted at the annual meeting of the American Society for Metabolic and Bariatric Surgery.

His hypothesis is that after weight loss induced by gastric bypass, patients have



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DR. ROSLIN

an enhanced insulin response. A substantial subgroup of these patients develop rapid emptying of their surgically created pouch, with resultant reactive hypoglycemia that contributes to grazing and other maladaptive eating behaviors, said Dr. Roslin, New York.

To test his hypothesis, he gave a 100-g oral glucose tolerance test to 63 patients coming to the obesity surgery clinic for routine follow-up a mean of 4 years after Roux-en-Y gastric bypass. Their mean age was 48.5 years, 81% were women, and one-third of the patients had diabetes preoperatively. Their mean preoperative weight was 138 kg. They had a maximum 55% excess weight loss, but had regained an average of 12 kg.

Fully 49 of the 63 patients (78%) had an abnormal glucose tolerance test. Six had hyperglycemia as defined by any post-challenge blood glucose value greater than 200 mg/dL with none below 80 mg/dL. Significantly, all but one of these six patients had normal fasting blood glucose.

Another 35 patients had reactive hypoglycemia, defined as a blood glucose value below 60 mg/dL or a decrease of at least 100 mg/dL between hours 1 and 2, with no value greater than 200 mg/dL. Another eight patients had both reactive hypoglycemia and hyperglycemia. Thus, more than two-thirds of the study group had evidence of hypoglycemia. These patients displayed a rapid postchallenge upsurge in blood glucose correlating with a rising insulin level, then a rapid decline in glucose in the second hour of the test.

A normal maximum-to-minimum glucose ratio on the 100-g test is 1.5-2:1. However, 22 patients in this study had ratios greater than 3:1, and 7 had ratios greater than 4:1. Another way of avoiding problems due to rapid pouch emptying, besides doing a vertical sleeve gastrectomy or duodenal switch procedure instead of gastric bypass, might be to incorporate a valve in the gastric bypass procedure.

"I favor the pyloric valve, which controls the passage of food," the surgeon continued.

Indeed, recognizing that his 63-patient oral glucose tolerance test series is merely an observational study, Dr. Roslin is now planning a prospective clinical trial comparing gastric bypass to a pyloric valve–preserving operation.

Dr. Harvey J. Sugerman, whose studies in the late 1990s are widely credited as enthroning gastric bypass as the goldstandard bariatric surgery procedure, rose from the audience to tell Dr. Roslin, "I think your hypothesis may be very valid. I see a lot of rapid emptying." A nonsurgical solution to these problems, he added, is simply to have affected patients drink half a glass of orange juice 30 minutes after they eat. It eases their ravenous hunger, said Dr. Sugerman of Sanibel, Fla.

Dr. Roslin disclosed that he has potential conflicts of interest resulting from commercial relationships with Covidien AG, C.R. Bard Inc., ValenTx Inc., Scientific Intake Ltd., and VentralFix Inc.



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