Gastric Bypass: Diabetes Reversal Almost Universal

BY NANCY WALSH
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NEW YORK — The pronounced weight loss experienced by obese patients following gastric bypass surgery is almost always accompanied by a rapid resolution of diabetes, David E. Cummings, M.D., said.

Restoration of normoglycemia in these patients cannot be explained by weight loss alone. Of the 84% whose diabetes remits, more than half have stopped their diabetes medications by the time they leave the hospital after their 2- to 3-day stay for the bypass. Most of the rest will remit over the next few days or weeks, Dr. Cummings said at a conference sponsored by the American Diabetes Association.

"That seems too fast to be explained by weight loss alone," said Dr. Cummings of the division of metabolism, endocrinology, and nutrition at the University of Washington, Seattle.

No doubt the gastric restriction plays a significant role; patients experience early satiety and consume smaller meals. But they do not compensate by eating more frequent meals or more nutrient-dense foods, as would be expected if energy homeostasis were the only driving factor, he said.

In 2002, Dr. Cummings and his colleagues proposed that impairment of the secretion of ghrelin, an enteric peptide hormone that stimulates appetite, might be responsible for the profound appetite loss and changes in eating behavior exhibited by patients after bypass surgery (N. Engl. J. Med. 2002;346:1623-30).

Because bypass surgery permanently isolates the ghrelin-secreting areas of the stomach and intestine from exposure to food, it stands to reason that levels of the peptide will remain depressed following the procedure, Dr. Cummings said. The result is that appetite remains suppressed.

Ghrelin not only influences food intake, but also exerts diabetogenic effects, including the suppression of insulin levels and actions. Impaired glucose tolerance is almost completely eliminated in patients who undergo gastric bypass, he said.

Moreover, the weight loss over time is associated with increases in adiponectin levels. This hormone increases insulin sensitivity, increases expression of the muscle insulin receptor, and decreases intramuscular lipids and the fatty acyl-coenzyme A molecules that can cause insulin resistance, he explained. ■

Metabolic Dx Often Missed in Female Patients

ORLANDO, FLA. — Middle-aged women should routinely be assessed for metabolic syndrome, Ana M. Schaper, Ph.D., said at an international conference on women, heart disease, and stroke.

In a retrospective study of the charts of 147 women under 65 years who were treated for MI in a rural midwestern community, Dr. Schaper found that 113 (77%) had no history of coronary disease, but many had risk factors: 70% had a history of smoking, 63% had high blood pressure, 52% had a family history of coronary artery disease, and 70% were overweight or obese.

Sufficient data were available for 80 of the women with no history of coronary disease to allow risk stratification based on National Cholesterol Education Program guidelines. Of these, only 10% would have qualified for medical management under the guidelines, and only 18% would have qualified for therapeutic lifestyle changes, but 49% had metabolic syndrome, Dr. Schaper of Gundersen Lutheran Medical Foundation, La Crosse, Wis., said during a news conference at the meeting.

Of the 135 patients who survived their initial hospitalization, 54 were readmitted within a year for chest pain, myocardial infarction, or a revascularization procedure. All women who were discharged on an ACE inhibitor or angiotensin receptor blocker, and lipid therapy, and 90% of those discharged on a -blocker, remained on their medications at 1-year follow-up.

At that time, total- and LDL-cholesterol levels were lower, and HDL-cholesterol levels were higher. Triglyceride levels were unchanged, Dr. Schaper said.

The findings suggest that all components of metabolic syndrome in women should be identified and treated aggressively, she said.

—Sharon Worcester