

## News Summary

### **P2-420: Lap Band weight loss surgery reduces teens' risk factors for heart disease, diabetes**

In teenagers, laparoscopic gastric banding surgery for treatment of extreme obesity can significantly improve and even reverse the metabolic syndrome, a new study found. The results will be presented Thursday at The Endocrine Society's 91st Annual Meeting in Washington, D.C.

An increasing number of obese adolescents have the metabolic syndrome, said a study co-author, Ilene Fennoy, MD, MPH, a pediatric endocrinologist at New York City's Columbia University Medical Center.

The metabolic syndrome is a cluster of metabolic risk factors that increase the chance of later developing diabetes and cardiovascular disease. Weight loss can reduce the risk factors that are part of the syndrome: abdominal obesity as shown by a large waist circumference (waistline), low HDL ("good") cholesterol, high triglycerides (fats in the blood), high blood pressure and high blood sugar.

"Few treatments, however, have succeeded in achieving major weight loss or greatly improving adolescents' medical complications of obesity—until now," Fennoy said.

In the new study, 24 morbidly obese teens between the ages of 14 and 17 years underwent laparoscopic gastric banding, also called the "Lap-Band" procedure. This minimally invasive weight loss surgery uses a band that can repeatedly be adjusted to make the stomach smaller.

Six months after the operation, patients had a statistically significant decrease in their body mass index (BMI, a measure of body fat) as well as their waist circumference and blood levels of C-reactive protein, a measure of inflammation that is linked to increased risk of cardiovascular disease. These improvements continued to 1 year in the 12 patients whose follow-up was that long.

Other features of the metabolic syndrome improved rapidly in the first 6 months and continued to a year, but with "less dramatic" changes, the authors reported in their abstract.

Five patients with 12-month follow-up met the criteria for a diagnosis of the metabolic syndrome before surgery. Only two still had this diagnosis a year later, a decrease in prevalence from 41.7 to 16.7 percent.

"Laparoscopic gastric banding surgery may be a useful intervention for morbidly obese teenagers to decrease the risk of early development of cardiovascular disease and other illnesses related to obesity," Fennoy said.

Currently approved for use only in adults, the Lap-Band procedure is being studied in teenagers under age 18. Long-term studies are needed to confirm that this procedure effectively improves the metabolic syndrome in adolescents, Fennoy said.

Eun-Ju Lee, a fourth year medical student at Columbia University Medical Center, and a Doris Duke Fellow in the Division of Pediatric Endocrinology will present the study results.

###