

Is Pregnancy Safe Soon After Gastric Bypass?

'The desire for pregnancy should not be a deterrent to Roux-en-Y gastric bypass,' a review suggests.

BY JEFF EVANS
Senior Writer

SAN FRANCISCO — Pregnancy soon after bariatric surgery does not appear to pose safety concerns for the mother or newborn, Dr. Tuoc N. Dao reported at the annual meeting of the American Society for Bariatric Surgery.

Surgeons have generally recommended that bariatric surgery patients should not become pregnant until 12-18 months after the procedure because of a perceived risk to the fetus or the woman during the period of large weight loss and limited calorie and nutrient intake following the surgery, said Dr. Dao, a surgical resident at Baylor University Medical Center at Dallas.

Although her review of 24 patients indicated that "the desire for pregnancy should not be a deterrent to Roux-en-Y gastric bypass as a weight-loss procedure," she and her colleagues still recommend that bariatric surgery patients wait 12-18 months before becoming pregnant "due to the psychological component of trying to undergo all of these changes at one time. Trying to lose weight and deal with a pregnancy at the same time I think would be too much for people."

Several previous studies have not reported any major adverse events or out-

comes in women who became pregnant after bariatric surgery. In a study of 298 deliveries, no adverse perinatal outcomes were reported in women who had restrictive or malabsorptive surgery, although Roux-en-Y gastric bypass (RYGB) was associated with an increased risk of premature rupture of membranes, labor induction, and fetal macrosomia (*Am. J. Obstet. Gynecol.* 2004;190:1335-40).

A separate review of 18 pregnancies after gastric bypass showed few metabolic problems or deficiencies in vitamin B₁₂ or iron (*South. Med. J.* 1989;82:1319-20). In another group of 46 deliveries, four of seven preterm infants were born to mothers who became pregnant within 16 months of their surgery. Pregnancy was safe outside of that time period (*Am. Surg.* 1982;48:363-5).

Pregnancy during the period of rapid weight loss immediately after surgery can cause deficiencies in iron, folate, calcium, and vitamin B₁₂. It also has been questioned whether women will be able to lose additional weight post partum during the early postoperative phase. Fetal and maternal deaths have been reported in a few cases of postoperative small bowel herniations and ischemia, but other reports have recorded good outcomes with early

detection and treatment of this complication, Dr. Dao said.

In her review of 2,532 patients who underwent RYGB at Baylor during 2001-2005, 24 became pregnant within 1 year after the surgery. These patients were 32 years old with a body mass index of 49 kg/m² at the time of surgery. At the time of delivery, the women were 34 years old and had gained a mean of 0.3 pounds during pregnancy, although this varied widely from losing 70 pounds to gaining 45 pounds.

The patients' mean body mass index dropped from 34 kg/m² when they became pregnant to 32 kg/m² at a mean follow-up of 13 months after delivery. At follow-up after delivery, they had lost an average of 76% of their excess weight. Only one patient failed to sustain the excess weight loss.

The 24 women had 26 pregnancies, 2 of which were early miscarriages in women who soon became pregnant again and carried to term. Of three other miscarriages, two occurred in the first trimester and one at a gestational age of 20 weeks. Another patient had an ectopic pregnancy.

One patient had mild iron deficiency during pregnancy that resolved with iron supplementation. One patient had symptomatic cholelithiasis and underwent laparoscopic cholecystectomy after the delivery of her baby.

An internal hernia in one patient was detected early and repaired without any incident. Another patient with a gastrogastroic fistula was treated conservatively until her delivery. Two patients had preterm labor. One patient had preeclampsia and one had mild hypertension that was much improved since her last pregnancy before bariatric surgery.

The 21 babies (including one set of twins) had an average birth weight of 2,874 g. Three neonates, including the twins, had a low birth weight (less than 2,500 g). One infant had intrauterine growth restriction (born to the mother with an internal hernia). Another infant had intrauterine growth restriction plus a low birth weight (born to the mother with a gastrogastroic fistula). No infants had any congenital or developmental defects.

In five of the women who had pregnancies before their RYGB surgery, there were fewer instances of diabetes, hypertension, and complications during post-surgery pregnancies than in those that occurred before the operation.

Dr. Dao did not know how many of the other patients who received RYGB in the cohort were lost to follow-up, but she said that patients who report pregnancy at clinical visits or on follow-up surveys are interviewed to gather information. ■

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Extremely Obese Benefit From Super Long-Limb Roux-en-Y

BY JEFF EVANS
Senior Writer

LOUISVILLE, KY. — Extension of the Roux limb in Roux-en-Y gastric bypass procedures for "super obese" patients may provide good long-term weight loss and resolution of comorbidities with an acceptable rate of complications, Wayne K. Nelson reported at the annual meeting of the Central Surgical Association.

Surgeons at the Mayo Clinic, Rochester, Minn., developed and refined the very, very long-limb Roux-en-Y gastric bypass (RYGBP) to meet the needs of their large referral practice in bariatric surgery, which accepts patients who are more overweight and have worse comorbidities than are typically seen.

The more commonly performed RYGBP operations for super obese patients—the distal gastric bypass and the biliopancreatic diversion with or without duodenal switch—both leave a relatively short Roux limb, a relatively long biliopancreatic limb, and a short (100-cm) common channel where food and digestive enzymes mix.

The proximal anatomy of the very, very long-limb RYGBP is similar to that of the distal RYGBP, but the Roux limb is much longer (typically 400-500 cm). This leaves a longer transit and greater ability to absorb water, minerals, and vitamins, said Mr. Nelson, a student at the Mayo Medical School in Rochester.

The common channel is the same 100-cm length, whereas the biliopancreatic limb is typically shorter—around 50-70 cm—than in other RYGBP procedures.

"Remember, this isn't a typical Roux-en-Y gastric bypass," he said.

Of 1,435 bariatric procedures performed at the Mayo Clinic during 1985-2003, 257 were performed with the very, very long-limb RYGBP. These 257 consecutive patients were 45 years old on average, and had an average body mass index (kg/m²) of 60, with BMIs ranging from 41 to 100. A total of 40% of patients were male. More than 90% of the operations were open.

When the investigators began their study, they sent a detailed survey to patients to gather data in addition to what had been captured at normal follow-up visits; 73% of the patients responded to the survey.

After an average of 45 months of follow-up, the patients' BMI had dropped to a mean of 37, and 82% had lost more than 50% of their excess body weight, an amount commonly considered as a marker of success in bariatric surgery.

The patients who did not lose greater than 50% of their excess body weight still lost a lot of weight, Mr. Nelson said, but many of them needed to lose hundreds of pounds to reach their ideal body weight. On average, patients lost 66% of their excess body weight.

Medical comorbidities resolved without the need for further treatment in many of the patients after the operation, including type 2 diabetes in 95% of the patients, hypertension in 65%, sleep apnea in 48%, and asthma in 30%. In the survey, 90% of the patients reported that they were satisfied with the results

of the operation, and 93% said that they would recommend the procedure to others.

Procedural complications included two deaths, four staple-line leaks (one required reoperation), two intraabdominal abscesses, five wound dehiscences, 22 wound infections, and two pulmonary emboli.

About 82% of the patients reported some food intolerance, and 70% had occasion-

al loose or watery stools. The more serious complication of malnutrition resulting from protein or caloric deficiency developed in 4%; this was resolved with a proximal relocation of the jejunioileostomy to lengthen the common channel to 200-300 cm. Other problems included oxalate nephrolithiasis in 16% of the patients, and gross steatorrhea in 5%.

"Because of the potential metabolic sequelae, [the very, very long-limb RYGBP] should not be offered" to patients who are medically naive, non-compliant, or unreliable regarding follow-up, or to those who have extremely abnormal preoperative amounts of urinary oxalate, Mr. Nelson said. ■

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Snapshot of a Very, Very Long-Limb RYGBP

The procedure leaves a Roux limb that is about three times longer than that of the standard RYGBP. The result is a longer transit and greater ability to absorb water, minerals, and vitamins.

