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ACOG Guidelines on Pregnancy After Bariatric Surgery

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As the prevalence of adult obesity increases in the United States, physicians are more often caring for patients who have undergone or who are considering bariatric surgery. Counseling and treating women who become pregnant after bariatric surgery present unique challenges. Although outcomes are generally good, nutritional and surgical complications can arise. The American College of Obstetricians and Gynecologists (ACOG) recently reviewed the available evidence on pregnancy outcomes after bariatric surgery.

Obesity is associated with reduced fertility, primarily because of oligo-ovulation and anovulation. In women who become pregnant, obesity confers increased risks of gestational diabetes mellitus, preeclampsia, cesarean delivery, and infectious morbidity. Operative morbidity is also increased, and obese women are less likely to have successful vaginal birth after a previous cesarean delivery.

Bariatric surgery is one option for weight loss in patients with a body mass index (BMI) of at least 40 kg per m², or in those with a BMI of at least 35 kg per m² who have comorbidities. There are two approaches to bariatric surgery: restrictive and restrictive/malabsorptive surgeries. The most common restrictive procedure is adjustable gastric banding, and the most common restrictive/malabsorptive procedure is the Roux-en-Y gastric bypass. Rapid weight loss is typical after either procedure, resulting in improvement of polycystic ovary syndrome, anovulation, and irregular menses, thus leading to higher fertility rates. However, bariatric surgery should not be considered a treatment for infertility.

Rates of congenital anomalies after bariatric surgery are not increased compared with the general population. There may be a trend toward lower birth weights in infants of women who have undergone bariatric surgery; maternal weight gain during pregnancy seems to be a predictor of birth weight.

Contraception and Preconception Counseling

Contraception and preconception counseling should be provided for all women of reproductive age who are undergoing bariatric surgery. Counseling on the use of contraceptives is especially important in adolescents because pregnancy rates following bariatric surgery are twice those in the general adolescent population (12.8 versus 6.4 percent). The risk of oral contraceptive failure is increased after bariatric surgery, so nonoral administration should be considered.

After bariatric surgery, a woman should wait 12 to 24 months before conceiving so that the fetus is not affected by rapid maternal weight loss and so that the patient can achieve her weight-loss goals. If pregnancy occurs before this recommended time frame, closer surveillance of maternal weight and nutritional status may be beneficial, and serial ultrasound monitoring of fetal growth should be considered.

Nutritional Status Monitoring

Protein, iron, folate, calcium, and vitamins B₁₂ and D are the most common nutrient deficiencies after gastric bypass surgery. A broad evaluation for deficiencies in micro-nutrients should be considered at the beginning of pregnancy in women who have had bariatric surgery, and treatment should be initiated if any deficits are present. If no deficits are noted, a complete blood count and measurement of iron, ferritin, calcium, and vitamin D levels every trimester should be considered.

Nutrient deficiencies can also occur after restrictive surgical procedures, such as adjustable gastric banding, because of decreased food intake or food intolerances. There is no consensus on the treatment of pregnant women who have had this procedure, but early consultation with a bariatric surgeon is recommended.

Antenatal Period

Because of the risk of delayed postoperative complications, gastrointestinal problems that are common in pregnancy (e.g., nausea, vomiting, abdominal pain) require thorough evaluation in women who have undergone bariatric surgery. Early consultation with a bariatric surgeon is critical to determine whether the symptoms are related to the surgery.

Dumping syndrome can occur after ingestion of refined sugars and high-glycemic carbohydrates in patients who have had gastric bypass surgery. Symptoms include abdominal cramping, bloating, nausea, vomiting, and diarrhea. Hyperinsulinemia and hypo-glycemia can occur later, resulting in tachycardia, palpitations, anxiety, and diaphoresis. Women with dumping syndrome may not tolerate

the 50-g glucose solution typically administered to screen for gestational diabetes. Alternative screening methods, such as home glucose monitoring, should be considered in patients who have undergone restrictive/malabsorptive surgery.


Because of the risk of malabsorption, oral drug administration must be carefully monitored in women who have had gastric bypass surgery. Extended-release preparations are not recommended; oral solutions or rapid-release preparations are preferred. Nonsteroidal anti-inflammatory drugs should be used with caution during the postpartum period to avoid gastric ulceration. When prescribing medications for which the drug level is critical, physicians may need to test drug levels to ensure a therapeutic effect.

Labor and Delivery

Bariatric surgery should not affect the management of labor and delivery. Although rates of cesarean delivery are higher in women who have had bariatric surgery, it is not an indication for cesarean delivery. If a patient has had extensive and complicated abdominal surgery from weight-loss procedures, prelabor consultation with a bariatric surgeon should be considered.

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