Bariatric Surgery and Pregnancy Outcomes

July 03, 2013
By Jamie Habib [1]

Pregnancy after bariatric surgery is associated with a reduced risk of having a large-for-gestational-age infant and an increased risk of having a small-for-gestational-age infant, concluded a matched cohort study of singleton deliveries in Denmark.

Given reports describing severe complications related to maternal and fetal malnutrition in women who have undergone bariatric surgery, researchers sought to determine the risk of adverse obstetric and fetal outcomes associated with the procedure. After exclusions, 339 women with a history of bariatric surgery (exposed) were matched to 1277 women with no history of bariatric surgery (unexposed) on prepregnancy body mass index (BMI), age, parity, and date of delivery. In the exposed group, 286 (83.4%) of the bariatric procedures were Roux-en-Y gastric bypass, the most common type of weight loss surgery. The mean gestational age at birth was slightly lower in the exposed group than in the unexposed group (274 vs 278 days; P<0.001), but the number of births before 37 weeks’ gestation and after 42 weeks’ gestation were similar between study groups. More important was the finding that children in the exposed group, compared with those in the unexposed group, had a lower mean birth weight (3312 g vs 3585 g; P<0.001), a lower risk of being LGA (adjusted odds ratio [OR], 0.31; 95% confidence interval, 0.15-0.65), and a greater risk of being SGA (adjusted OR, 2.29; 95% CI, 1.33-3.96). This difference in birth weight was more pronounced in a subgroup analysis that included only women with gastric bypass (n=286) and their matched comparators (n=1070), which showed that children in the exposed group were even more likely to be SGA (adjusted OR, 2.78) and even less likely to be LGA than children in the unexposed group.

According to the authors, this is the first study that shows that bariatric surgery increases risk of SGA after adjustment for BMI, parity, age, date of delivery, and smoking status. This finding suggests that bariatric surgery results in substantial weight loss as well as induced malabsorption in both the mother and the fetus. The study authors recommend that women who have undergone bariatric surgery be counseled about nutritional deficiencies and fetal growth restriction. An unaffiliated recent study comparing pregnancy outcomes in women who have had bariatric surgery with obese women found that bariatric surgery also is a risk factor for anemia.²

Pertinent Points:
- After bariatric surgery, women are less likely to have a large-for-gestational-age infant and more likely to have a small-for-gestational-age infant than BMI-matched women who have not had bariatric surgery.
- Bariatric surgery had no effect on the risk of preeclampsia, gestational diabetes mellitus, or cesarean delivery.

References: