Medical Xpress

Study supports recommendations to avoid pregnancy for at least 12 months after obesity surgery

May 9 2021

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A study presented at this year's European Congress on Obesity (held online, 10-13 May) supports recommendations to avoid pregnancy for 12 months after bariatric (obesity) surgery due to an association with

adverse outcomes in pregnancy including an elevated risk of preterm birth. The study is by Dr. Laura Heusschen, Vitalys Obesity Clinic, part of Rijnstate Hospital, Arnhem, The Netherlands, and colleagues.

More than half of all female patients who undergo bariatric surgery are of reproductive age, and the resulting weight loss improves fertility, as well as reducing the risk of gestational diabetes and hypertensive disorders during pregnancy. It also lowers the chance of the baby having a high birth weight, which is associated with an increased risk of complications for both mother and child.

Current recommendations for women undergoing bariatric surgery are that they should avoid pregnancy for 12 to 24 months after the operation to avoid problems caused by ongoing active weight loss and an increased risk of malnutrition due to a markedly reduced calorie intake. This is most likely to occur within the first 12 months after surgery and can decrease the nutritional supply to the growing fetus; potentially affecting its development and resulting in a reduced birth weight and greater likelihood of preterm birth.

The authors note, however: "Previous studies found no associations between the time from surgery to conception and adverse pregnancy or neonatal outcomes. In fact, most studies confirm that the risk of these outcomes is not increased during the first 12 months after bariatric surgery compared to later pregnancies."

The aim of this retrospective multi-centre cohort study was to evaluate pregnancy and birth outcomes by surgery-to-conception interval and by adherence to the recommendations for gestational weight gain of the National Academy of Medicine.* Births were categorised based on surgery-to-conception interval and gestational weight gain, with the primary outcome variables gestational age at delivery, preterm birth, birth weight, and weight-for-age percentile.

Preterm birth was defined as having a gestation period of less than 37 weeks, while gestation periods of less than 32 weeks were classed as very preterm based on the definition used by the World Health Organization. The relationship between the weight of an infant at birth relative to its gestational age was compared against birth weight charts, adjusted for sex. Those within the top 10% were classified as being large-for-gestational-age (LGA), with the bottom 10% classified as small-for-gestational-age (SGA).

The authors performed a retrospective analysis of 196 single pregnancies in mothers who had previously undergone bariatric surgery using the Roux-en-Y gastric bypass, Sleeve Gastrectomy, or One Anastomosis Gastric Bypass methods. These pregnancies were assigned to one of three groups based on time interval from surgery to conception: early group (24 months). Gestational weight gain was classified as inadequate, adequate or excessive according to the National Academy of Medicine recommendations.

Despite current recommendations, 23.5% of the women in this study cohort had conceived within 12 months of their operation. These 'early' pregnancies were associated with lower gestational age at delivery (267.1 days vs 272.7 and vs 273.1 days), lower gestational weight gain (-0.9 kg vs +10.2 kg and +10.0 kg), and lower neonatal birth weight (2979 grams vs 3161 grams and 3211 grams) than those in the 'middle' and 'late' groups, respectively.

The authors note: "Although the difference of 200 g in neonatal birth weight is probably not clinically relevant, the lower gestational age in the 'early' group might be alarming as we also found a trend towards more preterm births in this group."

The team also found an association between 'inadequate' gestational weight gain (40.6% were in this category) and lower gestational age at

delivery (266.5 days vs 273.8 days) and lower neonatal birth weight (3061 grams vs 3217 grams) compared to pregnancies in the 'adequate' weight gain group. Inadequate gestational weight gain was also associated with a higher rate of preterm births (15.9% vs 6.0%) than pregnancies with adequate gestational weight gain.

The authors conclude: "Our findings support the recommendation to avoid pregnancy for 12 months after bariatric surgery...We should encourage women who wish to conceive after bariatric surgery to avoid pregnancy until their weight has stabilised to minimise the risk of inadequate gestational weight gain. In order to break the vicious cycle of obesity and its health consequences, it is important that future research and clinical care focus on the prevention of babies being born small for gestational age after bariatric surgery."

Provided by European Association for the Study of Obesity

Citation: Study supports recommendations to avoid pregnancy for at least 12 months after obesity surgery (2021, May 9) retrieved 30 April 2024 from https://medicalxpress.com/news/2021-05-pregnancy-months-obesity-surgery.html