

Laparoscopic sleeve gastrectomy and pregnancy outcomes: a systematic review and meta-analysis.

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Abstract

Background

Laparoscopic sleeve gastrectomy (LSG) is nowadays a widely used method for the treatment of obesity. Its impact on pregnancy outcomes has been studied by several teams with contradictory results. The aim of this study is to examine the maternal and neonatal outcomes of women with prior LSG.

Materials and methods

Data sources were MEDLINE, CENTRAL, Scopus and grey literature. Eligibility criteria were trials that reported on women with LSG prior to conception and maternal and neonatal outcomes.

Results

From 406 articles, 9 studies were included, reporting 417 women and 421 pregnancies. Mean surgery to conception interval was 22.4 ± 14.5 months. The preoperative BMI was 43.6 ± 5.0 kg/m² while the BMI at conception was 29.7 ± 4.9 kg/m² and the mean weight gain during pregnancy was 8.9 kg. Pregnancy induced hypertension was diagnosed in 5.7%, preeclampsia in 2.7% and gestational diabetes in 5.7%. The caesarean section rate was 42.5%. Gestational age at delivery was 38.4 ± 5.7 weeks with mean birth weight at 3000 ± 539 g. Small for gestational age (SGA) neonates rate was 15.8% and large for gestational age (LGA) rate was 3.7%.

Conclusion

LSG seems to have positive impact on the reduction of gestational diabetes (GD) and LGA neonates while it does not seem to reduce in a significant way the rate of hypertensive disorders. On the contrary it is related to a higher rate of SGA infants.

Keywords

Laparoscopic sleeve gastrectomy, obesity, pregnancy, maternal outcomes, neonatal outcomes