Background: The prevalence of women who are overweight or obese has increased dramatically over the past decades. Weight loss before conception is the optimum way to decrease the risk for medical and obstetric complications in obese women of reproductive age. Because medical therapy and lifestyle changes have had limited success in maintaining long-term weight loss, bariatric surgery has become a popular alternative for obese women planning pregnancy. Aims: To determine whether delivery after bariatric surgery has lower rates of obesity-associated comorbidities and perinatal outcomes in pregnancy compared with pregnancy before bariatric surgery.

Key Methods: Design retrospective cohort study. We reviewed data from 2006 to 2011 from our hospital. Participants 58 women aged 18-40 who had undergone bariatric surgery had at least one pregnancy and delivery before and/or after bariatric surgery. Participants: 58 women aged 18-40 who had undergone bariatric surgery had at least one pregnancy and delivery before and/or after bariatric surgery. Main outcome measured were gestational diabetes, hypertensive disorders, fetal macrosomia, preterm birth and weight gain during pregnancy. We used Chi Square to calculate odds ratios and confidence intervals for each type of obstetric comorbidity.

Results: Among the 58 women who had undergone bariatric surgery and had a delivery, 51 delivered before surgery and 23 delivered after surgery. 16 patients had both deliveries before and after surgery. Sleeve gastrectomy was the surgery in 80% of all women. Compared with women who delivered before surgery (n=51), women who delivered after surgery (n=23) had lower rates of hypertensive disorders and preterm delivery; and significant lower rates of fetal macrosomia (23.5% vs. 0%; p= 0.01). Compared with pregnancy before surgery, the same women who delivered after surgery (n=16) had lower rates of hypertensive disorders and significant lower rates of excessive weight gain -more than 25 kg- during pregnancy (43.8% vs. 0%; p= 0.006).

Conclusion: A decrease in maternal complications, such as hypertensive disorders, fetal macrosomia and excessive weight is achieved following bariatric surgery.