Maternal obesity on pregnancy outcomes in women with severe preeclampsia

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Objective

Obesity is a major epidemic in developed countries that is now extending to developing countries; obesity also has important implications for pregnancy outcomes. In addition to "mechanical issues" associated with morbid obesity there is an increased frequency of other adverse outcomes. Of these, the best studied is preeclampsia. Aim aim was to examine the impact of maternal obesity on maternal and neonatal outcomes in pregnancies complicated with severe preeclampsia.

Methods

This retrospective cohort study was conducted from 2014 to 2015 at the University Clinic of Gynecology and Obstetrics, Skopje. Among prime gravid women with a singleton uncomplicated pregnancy with cephalic presentation of 38 weeks of gestation or more, we collected data about height and weight of participants during the first prenatal care, after the positive pregnancy test was. During labour and birth, data about the: preeclampsia, induction of labour, caesarean section, preterm delivery, postdate delivery, and weight of the newborn were collected. 3648 pregnant women were enrolled in the study. In order to explore the relationship between maternal first trimester Body Mass Index and pregnancy outcomes, participants were categorized in to five groups based on their first trimester Body Mass Index. The data were analyzed using tests in SPSS. Differences were considered significant if p < 0.05.

Results

Women with an above-normal Body Mass Index had a higher incidence of pre-eclampsia, induction of labor, caesarean section, pre-term labor, and macrosomia than women with a normal Body Mass Index (controls). There was no significant difference in the incidence of post-term delivery between the control group and other groups.

Conclusion

Increased BMI increases the incidence of induction of labor, caesarean section, pre-term labor and macrosomia. The BMI of women in the third trimester of pregnancy is associated with the risk of adverse pregnancy outcome.