

MATERNAL OVERWEIGHT AND OBESITY AND THEIR IMPACT ON PREGNANCY OUTCOME

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Background: The presence of overweight and obesity during pregnancy is a prerequisite for a high risk of adverse consequences for both the mother and the foetus. These maternal conditions can lead to long-term health complications in postnatal ontogenesis of the offspring, which creates a potential health risks in the next generations.

Objective: The aim was to assess the impact of maternal overweight and obesity on the pregnancy outcome (mode of delivery, gestational age and birth weight status).

Subjects and methods: Data on 373 mothers and their newborns, collected from the 2010 birth registry of the First Obstetrics and Gynaecology Hospital “St. Sofia”, Sofia were analysed. The included data refer to live-born children from singleton pregnancies. Nutritional status was assessed by the BMI, overweight was defined as a BMI of 25–29.9 kg/m² and obesity as a BMI ≥30. Comparisons were performed using a Chi-square and Fisher exact test, differences were considered statistically significant at $p \leq 0,05$ (SPSS 16.0).

Results: Overweight occurred in 47,0% of investigated women and 31,0% of them were obese. Maternal overweight and obesity showed statistically significant association with weight status of the newborn ($p=0.039$). The rate of newborns with weight ≥ 4000 g was 2.3% and 6.2% in overweight and obese mothers respectively. Nearly 40,0% of all births were performed by Caesarean section with higher but not significant prevalence in overweight and obese mothers. The highest percentage (5.8%) of newborns who was born before 37 gestational week was found for overweight mothers, but the association is not statistically significant. Overweight and obesity in pregnancy could be related to high birth weight and also could increase the risk of preterm birth.

Conclusion: The association with the mode of delivery remains unclear because of the high rate of elective Caesarean deliveries in Bulgaria regardless of maternal nutritional status.

Keywords: Maternal overweight; Maternal obesity; Birth weight; Gestational age; Mode of delivery.

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