Maternal anthropometry and weight gain as risk factors for low birth weight in singleton uncomplicated pregnancies

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Abstract

Objectives: The present cross sectional study was done to investigate the maternal anthropometry and weight gain in relation to pregnancy outcomes of mothers in Hail city of Saudi Arabia. Methods: The study was carried out in two maternity hospitals of Hail, Saudi Arabia. Sample size of 522 mothers who delivered single live baby without any congenital abnormality were selected to be included in the present study. Mother’s and infant’s anthropometric measurements were taken with standard techniques. Hemoglobin, blood sugar and blood pressure were recorded using electronic devices. Information regarding the demographic characteristics, health status of mothers, antenatal checkups and health related habits were accessed through structured questionnaire. Data was entered and analyzed through the Statistical Package for Social Sciences (SPSS) 17.0 Software. Odds Ratios, Means, Pearson’s correlation, Analysis of Variance were done to find out the risk factors associated with poor pregnancy outcome. Results: The mean birth weight of the infants was 3.16 kg ranging from 1.7 kg to 5.4 kg. Male babies tend to be heavier, whereas 100% of the very low birth weight deliveries were only females. Other factors like maternal Body mass Index before pregnancy, Weight gain in pregnancy, Maternal anemia, presence of chronic illnesses like diabetes, Hypertension and hypo/hyperthyroidism had effected the birth weight of newborn infants. Conclusion: The present study provides some useful data to promote healthy pregnancy outcomes. Maternal factors like nutritional status, poor pregnancy weight gain and unhealthy obstetric history are found to be the major risk factors.