

Pregnancy Weight Gain and Low Birth Weight Infants

Sunu Ajiasmara, Vicky Admiral Aprizano, Diannisa Ikarumi Enisar Sangun, Risanto Siswosudarmo

Department of Obstetrics and Gynecology, Faculty of Medicine, Public Health and Nursing, Universitas Gadjah Mada, Yogyakarta, Indonesia

ABSTRACT

Objective: The study was conducted to find out the cut-off point of pregnancy weight gain in association with the rate low birth weight infants. **Method:** This is a cross sectional study conducted at Sardjito and 7 affiliated hospitals in the Province of Central Java. A total of 944 pregnant women meeting the eligibility criteria were recruited. Pregnancy weight gain (PWG) was calculated as pre-labor mother weight subtracted by her pre-pregnancy body weight or body weight during the first 12 weeks of pregnancy. Receiver operating characteristic (ROC) curve was used to determine the cut-off point. Infant birth weight (IBW) less than 2500 gram was considered as low birth weight infant. **Results:** PWG and IBW ranged from 2 to 24 kg with the mean and standard deviation 11.35 ± 4.51 kg and 1450 to 4880 grams with the mean and standard deviation 3048.01 ± 390.60 grams respectively. The rate of LBW infant was 5.8%, and the cut off point for PWG was 8 kg. The sensitivity and specificity of the test were 85.45% and 77.50% respectively. The false positive and the false negative were 80.97% and 1.15% respectively, signifying that the PWG greater than or equal to 8 kg gave the probability of getting LBW infant. **Conclusion:** PWG \geq 8 kg gave the possibility of very low rate of LBW infant.

Retrospective Ten Year Comparative Study of Pregnancy Outcomes amongst Adolescents and Adults in a Low-middle-income Country Hospital

Azra Amerjee, Dur e Shahwar, Sana Sheikh, Nuruddin Mohammed, Ifrah Ali Baig, Raima Hashmi, Iffat Ahmed

Aga Khan University, Pakistan

ABSTRACT

Objective: To compare maternal and perinatal outcomes between adolescent and adult pregnant women. **Method:** Records were reviewed through convenience sampling for 396 adolescent primiparous women (age 13-19 years) with singleton low pregnancy, delivered over last 10-years at Aga Khan University Hospital Karachi and adult-women (age 20-25 years) were taken as controls (N=410). Maternal demographics, antenatal-booking-status, body mass index (BMI), gestational age (GA) at booking, mode of delivery and maternal complications were compared between the groups. Comparison of neonatal outcomes included APGAR scores, birth-weight-centiles, neonatal intensive-care-unit admissions, still-birth and neonatal deaths. Pearson χ^2 /Fisher-exact-test and Student t-test/Mann-Whitney U-test were used to test categorical-variables and continuous variables respectively. Neonatal birth weight centiles were calculated through Intergrowth 21st standard-reference chart. P-value < 0.05 was considered statistically significant. **Results:** Fifteen percent of adolescents had <3 antenatal visits compared to 8% of controls ($p=0.01$). Significant difference was observed in GA at booking (17.6 ± 9.62 adolescents v/s. 15.5 ± 8.80 controls $p=0.03$) No difference was observed in booking BMI (23.4 ± 4.77 cases v/s 24.0 ± 4.78 controls; $p=0.25$), BMI at delivery (27.58 ± 6.97 adolescents v/s 28.36 ± 5.10 controls; $p=0.37$) and GA at delivery (38.36 ± 2.24 adolescents v/s 38.56 ± 2.13 reference-group; $p=0.53$). Maternal and neonatal complications between the two groups remained insignificant. Birth-weight centiles were also comparable between adolescent and reference group. **Conclusions:** Maternal and perinatal outcomes in adolescent were found to be comparable to that of adult women. Good antenatal-care, observance of evidence-based protocols, and strong family backing may reduce risks to mothers and their babies in adolescent pregnancies.