ABSTRACT

Introduction

Pregnant mothers are gaining weight during pregnancy. The weight gain during pregnancy arises from several factors. Maternal weight gain influences in both maternal and fetal immediate and future outcomes. The recommended amount of weight gain to archive optimal maternal and fetal outcomes is still arguable.

Objectives

- To find out the association between the Apgar score of the baby at delivery and maternal weight gain during pregnancy.
- To find out the association between the birth weight of the baby and maternal weight gain during pregnancy.

Methods

Cross sectional descriptive study was carried out at Teaching Hospital Kandy, for one year duration.425 participants with normal pre gestational BMI (18.5-24.9) were selected by Systematic random sampling technique. Medical disorders complicating pregnancies, twins, previous miscarriages and fetal abnormalities were excluded. Data extracted from antenatal record, bed head ticket and measurement of relevant variables. APGAR score and birth weight were outcome variables. SPSS 22.0 was used for data analysis.

Results

Maternal age distributed from 17 to 43 years with 95% CI: 27.4 to 28.59 years (SEM=0.284).Maternal height distributed from 125cm to 172cm with 95% CI: 154.9 to 153.8cm (SEM=0.28). Pre pregnancy BMI distributed from 18.5 to 24.9 with 95% CI: 21.39 to 21.78(SEM= 0.09). Maternal body weight at delivery was distributed from 36 to 116 kg with 95% CI: 62.79 to 64.9(SEM=0.55).Pregnancy weight gain distributed from 3.5 to 24.5 kg within 95% CI 8.5 to 9.0 kg (SEM=0.18). Birth weight was distributed from 1.24 to 4.04 kg with 95%CI from 2.88kg to 2.96kg (SEM=0.02) All exposure parameters having positive linear correlation with birth weight. All the

correlation co efficient values except pregnancy weight gain were significant with the birth weight. Almost all study participants (N=423:99.5%) had achieved >7 score of APGAR within 10 minutes.

Conclusion

This study concluded that the maternal weight gain does not affect the birth weight of the new born, or any hypoxia situations at the time of birth. Further studies could be recommended with a larger sample size and a prospective cohort design with continuous follow up during the antenatal period.

Key Words: Body Mass Index, maternal weight gain, Pregnancy, Birth weight, Apgar score.