

Frequency of Low Birth Weight in Primigravida reported at PUMHS Hospital Nawabshah

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ABSTRACT

Objective: To determine the frequency of low birth weight in primigravida reported at PMC Hospital Nawabshah.

Study Design: Descriptive case series study.

Place and Duration of Study: Departments of Gynaecology & Obstetrics and paediatrics medicine, at Peoples University of Medical & Health Sciences Nawabshah, from Jan 2011 to the Dec 2011.

Materials and Methods: This study consisted of 319 pregnant women at 16 weeks of gestational age with singleton pregnancy reporting to the Antenatal Clinic, Obstetrics and Gynaecology Department were selected. Weight was measured by using weight machine throughout antenatal checkups. Weight and height was measured by same person rechecked. Their pregnancies were followed to assess the low birth weight. The neonatologist evaluated the babies. All primigravida women in the reproductive age group between >18 to <35 years with singleton pregnancy, normal fetal lie, and Height 5 feet or more were included. Exclusion criteria were patients associated with uterine anomalies (like uterine polyp, uterine septae, submucosal fibroid), smoking, short stature, other medical disorder like diabetes, hypertension, thyroid disorders, epilepsy and asthma. Results were prepared with help of tables and graphs. Data was analyzed through SPSS software.

Results: 319 patients included in this study. There was a wide variation in age was noted. The youngest patient was 18 years old and the oldest patient was 35 years old. The mean age was 21.21 ± 4.22 years and peak age group for presentation of primigravida in our study is 26 to 30 years. Clinical asses the fetal weight and observed 42(13.16%) cases were <2.5kg weight while remaining 277(86.83%) cases were 2.5 to 4 kg weight.

Conclusion: In conclusion, we observed in our study that low body weight of primigravida mother is associated with low birth weight babies.

Key Words: Low birth weight, Low body mass index, Primigravida .

INTRODUCTION

Intrauterine growth and development is one of the most vulnerable process in the human life cycle¹. Low birth weight (LBW) is a known problem of reproductive health and general health status of population worldwide². It continues to still a major public health problem throughout world. The prevalence of low birth weight according to WHO estimation about 25 million low birth weight babies are born per year, approximately 95% of them is reported in developing countries³.

Maternal circumstances is the most important factor of birth weight and factors that prevent normal circulation across the placenta cause poor nutrient and oxygen supply to the fetus and leads restricting growth⁴. Different factors vary from one area to another, depending upon geographic, socioeconomic and cultural factors. Underweight primigravida women have a greater frequency of preterm birth (32-37 weeks) and preterm labour⁵. In primigravida women with low body mass index there is reduction in birth weight⁶.

This study was done to find out the frequency low birth weight in primigravida women delivering singleton babies at term.

MATERIALS AND METHODS

This study was conducted at the department of Obs & Gynae and paediatrics medicine of Peoples University of Medical & Health Sciences, Nawabshah, from Jan 2011 to the Dec 2011. Descriptive case series study, 319 pregnant women at 16 weeks of gestational age with singleton pregnancy reporting to the Antenatal Clinic, Obstetrics and Gynaecology Department were selected. Weight was measured by using weight machine throughout antenatal checkups. Weight and height was measured by same person rechecked. Their pregnancies were followed to assess the low birth weight. The neonatologist evaluated the babies. All primigravida women in the reproductive age group between >18 to ≤ 35 years with singleton pregnancy, normal fetal lie, and Height 5 feet or more were included. Exclusion criteria were patients associated with uterine anomalies (like uterine polyp, uterine septae, submucosal fibroid), smoking, short stature, other medical disorder like

diabetes, hypertension, thyroid disorders, epilepsy and asthma.

RESULTS

There was a wide variation in age was noted. The youngest patient was 18 years old and the oldest patient was 35 years old. The mean age was 21.21 ± 4.22 years and peak age group for presentation of primigravida in our study is 26 to 30 years (Chart No.1).

In this study clinical asses the fetal weight and observed 42(13.16%) cases were <2.5kg weight while remaining 277(86.83%) cases were 2.5 to 4 kg weight. (Chart No.2).

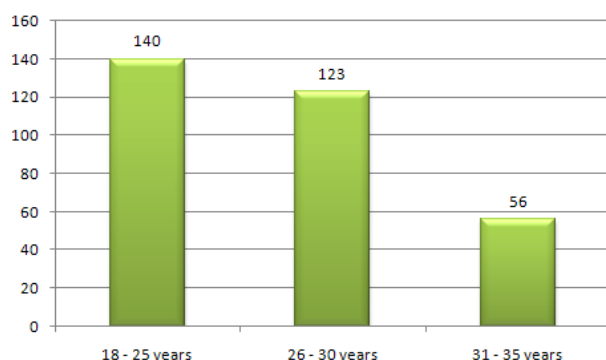


Chart No.1: Age Distribution

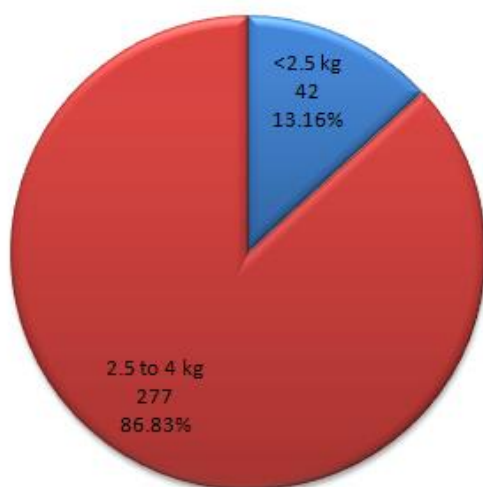


Chart No.2: Distribution of cases by fetal weight

DISCUSSION

Motherly diet is an important determinant of outcomes of pregnancy malnutrition during pregnancy and its consequences maximally affect the health and long term outcomes of the population. Low birth weight related with maternal malnutrition as a risk factor in primigravida ⁷.

Factors associated with low birth weight and their presence in an individual woman indicates an increased possibility, or risk, of bearing a low birth weight infant. The relationship of maternal underweight with

obstetrics performance are less clear. Some studies reported ^{8,9} increased incidences of preterm delivery, low birth weight and increased perinatal loss in these women, an other study ¹⁰ have reported a protective effects of maternal underweight on certain pregnancy complications and interventions.

In Pakistan mostly rural area women have lower socioeconomic status, maternal education, maternal occupation farm labourer and having heavy physical activity during antenatal period were significantly associated with low birth weight in primigravida. Rural women from lower socio-economic status are more susceptible to poor diet and more likely to undertake physically demanding work during pregnancy. Uneducated mothers from rural area are not utilizing or inadequately utilizing antenatal care services.

In our study maternal age was 18 years old and the oldest patient was 35 years old. The mean age was 21.21 ± 4.22 years and peak age group for presentation of primigravida in our study is 26 to 30 years. Some international authors Krammer⁵, Hirve and Ganatra¹¹, Deshmukh et al¹² also reported significant relationship between socioeconomic status and birth weight of baby. The frequency of illiterate and primary education was more in 35.5% cases as compared to control group 24.5%. Hirve and Ganatra¹² reported adjusted odds ratio for delivering LBW decreases significantly with increasing education status of the mother. In rural area women are regularly continue strenuous physical work in reproductive period due to lower socioeconomic status. In this study clinical asses the fetal weight and observed 42 (13.16%) cases were <2.5kg weight while remaining 277 (86.83%) cases were 2.5 to 4 kg weight, while in the study of Urooj U reported out of 114 patients (with BMI<19), 15 (13.1%) patients presented with preterm labour and 12 (10.5%) patients gave birth to fetus with weight <2.5kg¹³. Another prospective study conducted by Watson-Jones et al in antenatal clinics in Mwanza, a prevalence of as low as 8% LBW and 12% preterm birth has been reported¹⁴.

CONCLUSION

In conclusion, we observed in our study that low body weight of primigravida mother is associated with low birth weight babies. Provide nutritional education and food supplements to the rural area women for antenatal period of pregnant mothers is an established to improve pregnancy outcome.

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