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Original Research

Prevalence of Anemia among pregnant women

Abdussalam

Professor, Department of Physiology, Era medical collage and Hospital Lucknow

ABSTRACT

Background: Anemia is one of the most common nutritional deficiency disorders affecting the pregnant women and it is commonly associated with poor pregnancy result and can result in complications that threaten the life of both mother and fetus. **Material and methods:** The present study was conducted to evaluate the prevalence of anemia among pregnant women. The sample size chosen was 50 females. The study was conducted for a period of 2 months. All the antenatal mothers visiting the hospital for regular antenatal checkup during this period were included in the study after taking informed consent for participation in the study. The data were collected using semi-structured questionnaire. The data were analyzed using Statistical Package for the Social Sciences 22.0 version and $P < 0.05$ was considered statistically significant. **Results:** The result of our study shows that the antenatal mothers belonged to different trimesters, among them 50% belonged to the second trimester, and 24% were in the first and 26% were in the third trimester. 62% of the mothers had spacing of more than 2 years of spacing between present pregnancy and previous pregnancy and 38% of them had spacing of < 2 years. In our study, 36% were having normal hemoglobin status and 24% were having mild anemia and 40% were having moderate anemia. None of the mothers were having severe anemia. **Conclusion:** The prevalence of anemia among pregnant women was high in our study. To improve maternal and fetal health, it is recommended that the primary health care has to be strengthened. Health education on reproductive health and appropriate management are important health-care measures to be undertaken at the community level.

Keywords: Anemia, trimester, haemoglobin.

Corresponding author: Dr Abdussalam, Professor, Department of Physiology, Era medical collage and Hospital Lucknow.

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INTRODUCTION

Anemia is one of the most common nutritional deficiency disorders affecting the pregnant women; the prevalence in developed countries is 14%, in developing countries 51%, and in India, it varies from 65% to 75%.^{1,2} World health organization (WHO) defines anemia as a low blood hemoglobin concentration. It is one of the major public health problems globally with varied results.^{3,4} It affects the physical health and cognitive development of individual causing low productivity and poor economic development of a country.^{3,5} In developing countries it is related to high maternal and infant morbidity and mortality.^{6,7} The causes of anaemia during pregnancy in developing countries are multifactorial; these include micronutrient deficiencies of iron, folate, and vitamins A and B12 and anaemia due to parasitic infections such as malaria and

hookworm or chronic infections like TB and HIV.⁸⁻¹² The present study was conducted to assess the prevalence of anaemia among pregnant women.

MATERIAL AND METHODS

The present study was conducted to evaluate the prevalence of anemia among pregnant women. The sample size chosen was 50 females. The study was conducted for a period of 2 months. All the antenatal mothers visiting the hospital for regular antenatal checkup during this period were included in the study after taking informed consent for participation in the study. The data were collected using semi-structured questionnaire. The questionnaire consisted of data regarding sociodemographic data, obstetric score, antenatal visits, and weight gain during pregnancy and hemoglobin status. Sociodemographic details were collected by interviewing the mothers and other details

including hemoglobin status were collected from the records (from both mother and child protection card and other reports from private hospitals the mothers had). The study was initiated after obtaining approval from the Institutional Ethics Committee. The data were analyzed using Statistical Package for the Social Sciences 22.0 version and $P < 0.05$ was considered statistically significant.

RESULTS

The result of our study shows that the antenatal mothers belonged to different trimesters, among them 50% belonged to the second trimester, and 24% were in the first and 26% were in the third trimester. 62% of the mothers had spacing of more than 2 years of spacing between present pregnancy and previous pregnancy and 38% of them had spacing of < 2 years. Table 2 shows for classification of anemia, the World Health Organization classification for pregnant women was used. Hemoglobin > 11 g/dl was considered as normal hemoglobin status, 9–10.9 g/dl as mild anemia, 7–8.9 g/dl as moderate anemia, and hemoglobin < 7 g/dl as severe anemia. In our study, 36% was having normal hemoglobin status and 24% were having mild anemia and 40% were having moderate anemia. None of the mothers were having severe anemia.

Table 1: Distribution of study subjects according to trimester, spacing between the pregnancies (n=50)

Variables	N(%)
Trimester	
First	12(24%)
Second	25(50%)
Third	13(26%)
Spacing between previous and present pregnancy	
<2 years	19 (38%)
>2 years	31(62%)

Table 2: Distribution of study subjects according to hemoglobin status

Type of anemia	N(%)
Normal anemia	18(36%)
Mild anemia	12(24%)
Moderate anemia	20(40%)
Severe anemia	0(0)%

DISCUSSION

Indian Council of Medical Research surveys showed that over 70% of pregnant women in the country were anemic.² The result of our study shows that the antenatal mothers belonged to different trimesters, among them 50% belonged to the second trimester, and 24% were in the first and 26% were in the third trimester. 62% of the mothers had spacing of more than 2 years of spacing between present pregnancy and previous pregnancy and 38% of them had spacing of < 2 years. In our study, 36% were having normal hemoglobin status and 24% were having mild anemia and 40% were having moderate anemia. None of the mothers were having severe anemia.

Similarly study conducted by Vivek RG et al found that the prevalence of anemia was higher in pregnant women in the second and third trimesters.¹³

Suryanarayana et al. conducted a study in Kolar district and showed prevalence of 63% among pregnant women.¹⁴

In a study by Bhargavi Vemulapalli *et al.*, 40.97% had a moderate degree of anemia and 6.28% of the population had a severe degree of anemia.¹⁵

Shwetha P et al conducted a study an shows the result that around 67% of study subjects were in the second trimester and the prevalence of anemia among pregnant mothers was 68.6% (60.6% and 8.0% were mild and moderately anemic, respectively), none of the study subjects were severely anemic.¹⁶

CONCLUSION

The prevalence of anemia among pregnant women was high in our study. To improve maternal and fetal health, it is recommended that the primary health care has to be strengthened. Health education on reproductive health and appropriate management are important health-care measures to be undertaken at the community level.

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