



RETROSPECTIVE STUDY ON PREVALENCE OF ANEMIA AMONG PREGNANT WOMEN REGISTERED IN A URBAN HEALTH TRAINING CENTRE IN KRISHNA COLONY, KATHUA, J&K.

Community Medicine

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ABSTRACT

Introduction: Anemia in pregnancy is one of the major risk factor. The prevalence of anemia in Indian females is approximately, 52%. It is associated with an increased risk of maternal deaths in case of severe anemia, low birth weight, premature delivery, risk of birth asphyxia and intrauterine fetal death. Thus anemia is considered as one of the most frequent complications of pregnancy and there is need of early detection.

Methods: Retrospective record based study conducted at Urban Health Training Centre Krishna Colony, Kathua, J&K. Data regarding pregnancy were collected from 1st March 2018 to 1st March 2019 by referring the records maintained by the ANMs at UHTC. Data was analysed using SPSS 20.

Results: A total of 196 pregnant women were registered at UHTC for ANC care during this one year period. Majority (50.5%) belonged to the age group of 21-25 years and 9 females were of the age group 15-20 years. Prevalence of anemia in the present study was found to be 73.4% among which 62 cases were mild form, 79 cases were moderate form and only 3 cases were of severe form with hemoglobin level below 7g/dl.

Conclusions: The prevalence of anemia in pregnancy at booking is still high. Preconception care, including iron and folic acid supplementation, is advocated to reduce this problem. Early antenatal registration and improved antenatal care are also necessary for early diagnosis and treatment of the condition. All this would ensure safe motherhood.

KEYWORDS

INTRODUCTION

Maternal anemia continues to be a public health problem and is associated with mortality and morbidity in the mother and baby, including risk of miscarriages, stillbirths, prematurity and low birth weight. The World Health Organization (WHO) defines anemia as a condition in which the hemoglobin concentration of a woman during pregnancy is <11 g/dl.¹ The prevalence of anemia in developed countries is 14%, in developing countries 51%, and in India, it varies from 65% to 75%.^{2,3} At least half of all the pregnant women of middle and low-income countries are affected.⁴ In India, anemia is the second most common cause of maternal death, accounting for 20% of total maternal deaths.⁵ The prevalence of anemia ranges from 33% to 89% among The most common cause of anemia worldwide is iron deficiency affecting about 32 million women followed by other factors such as hemoglobinopathies, and infections such as HIV, malaria, and parasitic infestation.^{6,7} Numerous national health programs related to the prevention and control of anemia have been in existence. The ministry of Health, Government of India has recommended intake of 100mg of elemental iron with 500 mcg folic acid tablets in second half of the pregnancy for a period of at least 100 days.⁸ Among the various strategies to reduce this public health problem on the part of the Government of India, "Weekly Iron and Folic Acid Supplementation Program" is one of the successful initiatives going on. Hence present study was undertaken with an objective of finding the prevalence of anemia among pregnant women registered at Urban Health Training Center of Government Medical College Kathua, India.

METHODOLOGY

Present study was conducted in Urban Health Training Center of Government Medical College, Kathua. Permission for conducting the study was taken from concerned authorities. Data for ANC cases registered from 1st March 2018 to 1st March 2019 were taken from ANC register. Data regarding age, religion, gestational age at time of registration, gravida, para, birth interval between pregnancies were taken. Hemoglobin level was taken from the case record and was classified as mild, moderate and severe based on WHO classification. Data was entered in MS-Excel and descriptive statistics was expressed in the form of number and percentages

RESULTS

A total of 196 pregnant women were registered at Urban Health Training Center for ANC care during this one year period. In the present study majority of the pregnant women belonged to the age group of 21-25 years (49.4%) followed by age group of 26-30 years. 3.06% of the pregnant women belonged to age group of 15-20. (Table 1) Out of the 196 females, 144 (73.4%) were found to be anemic. (Fig 1)

1) Sixty two women (31.9%) had mild anemia, seventy nine women (40.3%) had moderate anemia while only three (1.5) had severe anemia. (Table 2, Fig 2)

Table 1: Age wise distribution of pregnant females

S.no	Age in years	Frequency	Percentage (%)
1	15-20	6	3.06
2	21-25	97	49.4
3	26-30	54	27.5
4	30-35	27	13.7
5	>35	12	6.09

Fig 1. Prevalence of anemia among pregnant females

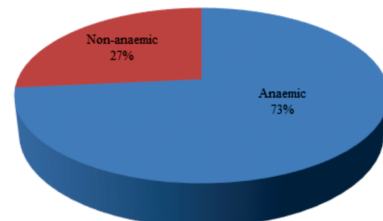


Table 2: Distribution of pregnant women according to degree of anaemia.

S.no	Anemia grade	Frequency	Percentage (%)
1	Mild	62	43.05
2	Moderate	79	54.8
3	Severe	3	2.08

Fig 2. Distribution of pregnant women according to degree of anaemia.

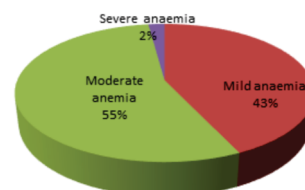


Table 3: Relation between age and prevalence/ severity of anaemia

Age in years n= 196	No anaemia	Mild anaemia	Moderate anaemia	Severe anaemia
15-20	6	2	1	2

21-25	97	24	33	39	0
26-30	54	13	20	21	0
31-35	27	10	6	11	0
>35	12	3	2	6	1

Majority of the cases were found in the pregnant females of age group 21-25 years where moderate anaemia constituted 27.08% of the total anaemic cases. 2 were found to have severe anaemia in the 15-20 years age group. (Table 3)

Table 4: Relation between parity and prevalence/ severity of anaemia.

Parity n= 196	No anaemia	Mild anaemia	Moderate anaemia	Severe anaemia
Primigravida	91	23	30	1
Para 1	79	26	24	1
Para 2	22	3	7	0
Para 3	4	0	1	1

Out of the 91 Primiparous women, 30 had mild and 37 had moderate anaemia. 1 case each of severe anemia was found in the primi, para 1 and para 3 (Table 5)

Table 5: Relation between birth interval and prevalence/ severity of anaemia

Birth interval n= 105	No anaemia	Mild anaemia	Moderate anaemia	Severe anaemia
<1	9	1	6	1
1-2	47	9	26	0
2-3	33	6	18	0
>3	16	4	9	1

Majority of the anemic cases were seen in case of 1-2 years of birth interval where in out of 47 anemic females, 26 had moderate and 12 had mild anemia. (Table 5)

DISCUSSION

The study was a retrospective record based study conducted in urban health training centre of Government Medical College Kathua. In our study, we found a high prevalence of anaemia (73.4%). Sixty two women (31.9%) had mild anemia, seventy nine women (40.3%) had moderate anemia while only three (1.5) had severe anemia. This was almost comparable to study done in Government Lady Goschen hospital, Kasturba Medical College, Mangalore (80.6%) and Saraswati Institute of Medical College, Hapur, Ghaziabad (78.4%).^{1,2} In contrast, very high

prevalence was observed by Viveki *et al.*, Totega, and Gautam *et al.* (82.9%, 84.9%, and 96.5%, respectively).^{3,4,5} Also, Indian Council of Medical Research surveys showed that over 70% of pregnant women in the country were anemic.⁶ Out of the 3 severe anaemic cases, 2 were found in females who were less than 20 years and 1 case in above 35 years of age. A similar study from Mumbai also showed that younger age and schooling of at least 10 years had any significant association with Haemoglobin levels.⁷ Thangeela *et al.* conducted a similar study and found that prevalence of anemia was more below 20 and above 35 years of age.⁸ Studies in India demonstrated that the high proportion of maternal deaths are due to anemia in pregnant women,⁹ whereas in the present study, there were no maternal deaths

Thus, anemia remains endemic among pregnant women in India despite intervention measures such as the distribution of iron and folic acid tablets to each woman to be taken during pregnancy.

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