



ORIGINAL RESEARCH PAPER

Obstetrics & Gynaecology

A STUDY OF PREVALENCE OF ANAEMIA IN PREGNANT WOMEN ATTENDING ANTENATAL OP IN A TERTIARY CARE HOSPITAL

KEY WORDS: Anemia, Hemoglobin, Iron supplementation, Maternal mortality

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ABSTRACT

Background: Anemia in pregnancy is a major health problem worldwide, especially in developing countries like India. Maternal and fetal outcomes are poor in pregnant patients with anemia. The most important cause of anemia is iron deficiency anemia which can be prevented by early oral iron supplementation. **Methods:** This cross-sectional study was conducted in the department of obstetrics and gynecology of our tertiary care teaching institution for a period of six months. 2477 pregnant women coming to the antenatal OPD were screened for anemia and 877 Antenatal Women who were not anemic were excluded. 1600 Antenatal women were enrolled in the study. Each patient was interviewed using a structured interview schedule and the data obtained was analyzed. **Results:** The percentage of anemia in pregnant women was 62% in our study of which 40% were mildly anemic, 55% were moderately anemic and 5% were severely anemic. Maximum number of anemic women -mild, moderate and severe was seen in the age group 20-24 years. Mild and severe anemia was seen more in the secondary educated women. Maximum percentage of anemia was seen in the lower socio-economic status followed by middle and was lowest in the higher socio-economic status group. Prevalence of anemia was almost equal in primigravida and multigravidas (around 50%) but 80% of severely anemic patients were multigravida. Almost 68% took iron and folic acid tablets regularly. **Conclusions:** Our study concludes that the occurrence of anaemia among pregnant women is high and should not be ignored and associated factors must be taken into consideration to improve the prevention and management policies of anaemia.

INTRODUCTION

Anemia is the most common medical disorder during pregnancy in developing countries.¹ It is still more prevalent in India. Sowmya G et al, in their study found the prevalence of anemia in pregnancy as 64.5%.² Maternal deaths are more in antenatal patients suffering from anemia than healthy mothers. The fetal outcome is also poor with increased perinatal morbidity and mortality.³ Anemia during pregnancy is a major health problem in South Asian countries. The oxygen carrying capacity of the blood is reduced in anemic patients. The most important cause of anemia is nutritional. More than 70% of pregnant women suffer from nutritional anemia in South East Asia.⁴ This can be overcome by early oral iron therapy because the most common type of anemia is iron deficiency anemia (75%).^{5,6} This is mainly due to lack of knowledge regarding the importance of nutrition on maternal health, and poverty inhibits them from buying healthy nutritious food.^{7,8}

The aim of the present study is to find out the prevalence of anemia and analyze the distribution of the age, education, socio economic status and parity in pregnant anemic women and their acceptance of oral iron therapy.

METHODS

This cross-sectional study was conducted in the department of obstetrics and gynecology of our tertiary care teaching institution for a period of 6 Months between June 2022 to November 2022. A total 2477 pregnant women coming to our antenatal OPD were screened for anemia using laboratory tests and 877 women who were not anemic were excluded. A total 1600 patients were enrolled in the study.

Inclusion Criteria

- Pregnant women
- Hb% less than 11 gm%.

Exclusion criteria

- Non pregnant women
- HB above 11 gm%.

Study population

Pregnant women attending the antenatal OPD of our tertiary

teaching institution between the ages of 18 to 50 years from nearby villages in Prakasam district were considered.

- Total no. of ANWomen - 2477
- No. of anemic patient - 1600
- Percent of anemic patient – 64.59%.

Each patient was interviewed using a structured interview schedule to obtain information regarding the age, parity, educational and socio-economic status. The severity of anemia was estimated and the intake of iron supplementation by the pregnant patient was also studied.

Statistical analysis

The data obtained was organized according to the severity of anemia. Data was entered and analyzed using Microsoft Excel spreadsheet, and the various degrees of anemia were expressed in percentage.

RESULTS

Out of 2477 OPD pregnant women 877 had Hb% above 11 gm/dl. So, the prevalence of anemia was 64.59% of which 40% were mildly anemic (Hb-9-11 gm%), 55% were moderately anemic (Hb-7-9 gm%) and 5% were severely anemic (Hb-less than 7 gm%) according to WHO classification (Figure 1).

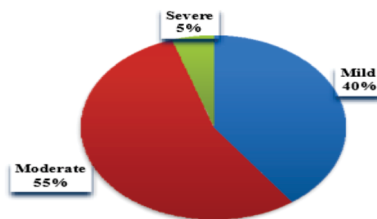


Figure 1: Prevalence of anaemia among pregnant women.

Table 1: Age distribution.

Age	Mild anemia	Moderate anemia	Severe anemia	Total
< 20 years	70(10.9 %)	126 (14.3%)	12 (15%)	208 (13%)

20-24	300 (47%)	640 (72.73%)	48 (60%)	988 (61.75%)
25-29	250 (39%)	88 (10%)	16 (20%)	354 (22.12%)
> 30	20 (3.1%)	26 (2.95%)	4 (5%)	50 (3.72%)
Total	640	880	80	1600

The 1600 anemic women were included in the study. Mean age of the participants was 22. Maximum numbers of anemic women were in the age group 20-24 years (61.75%) followed by 22.1% in 25-29 years and 13% in less than 20 years group. The least anemia was seen in the age group more than 30 years (3.72%) (Table 1). Of the antenatal women 11.5% were illiterate, primary and secondary educated 36.5% and 44.75% respectively and 7.25% were graduate and above. Anemia was seen more in the secondary educated women (44.75%) followed by primary educated women (36.5%) and illiterate (11.5%). Least percentage of anemias was seen in the graduate women (7.25%) (Table 2). On analyzing socio-economic status as expected maximum percentage of anemia was seen in the lower socio-economic status (63.75%) followed by middle (32.625%) and was lowest in the higher socio-economic status group (3.625%) (Table 3).

Prevalence of anemia in primigravida (49.25%) and multigravida (50.75%) were almost equal but 80% of severely anemic patients were multigravida. (Table 4). Almost 68% took iron and folic acid tablets regularly (Table 5).

Table 2: Educational status.

Education	Mild anemia	Moderate anemia	Severe anemia	Total
Illiterate	96 (15%)	80 (9%)	8(10%)	184(11.5%)
Primary	128 (20%)	436 (49.5%)	20 (25%)	584 (36.5%)
Secondar	352 (55%)	320	44 (55%)	716
Graduate	64 (10%)	44 (5%)	8 (10%)	116 (7.25%)
Total	640	880	80	1600 (100%)

Table 3: Socio economic status.

Status	Mild anemia	Moderate anemia	Severe anemia	Total
Low	384 60%	572 (65%)	64 (80%)	1020 (63.75%)
Middle	212 (33.1%)	298 (33.86%)	12 (15%)	522 (32.625%)
High	44 (69%)	10 (1.14%)	6 (5%)	58 (3.625%)
Total	640	880	80	1600 (100%)

Table 4: Parity.

Parity	Mild anemia	Moderate anemia	Severe anemia	Total
Primi Para	324 (50.6%)	448 (50.9%)	16 (20%)	788 (49.25%)
Multi Para	316 (49.4%)	432 (49%)	64 (80%)	812 (50.75%)
Total	640	880	80	1600 (100%)

Table 5: Iron supplementation.

Iron tab	Mild	Moderate	Severe	Total
Yes	512 (80%)	528 (60%)	48 (60%)	1088 (68%)
No	128 (20%)	352 (40%)	32 (40%)	512 (32%)
Total	640	880	80	1600 (100%)

DISCUSSION

In this present study, the percentage and severity of anemia in pregnant women was analyzed. The prevalence of anemia in pregnancy in our study was 62%. The severity of anemia was graded as per WHO classification of anemia. 40% of the women were mildly anemic, 55% were moderately anemic and 5% severely anemic. Similar, results were obtained by Singh P et al.¹ As per our study, anemia was most prevalent in age 20-24 years old (61.75%). This finding is almost the same as Gaurah et al (77.9%) and Shwetha et al (70%).^{9,10} Regarding educational qualification anemia was more prevalent in primary and secondary educational level, 36.5% and 44.75% respectively. In our study of socio-economic status, anemia was more common in lower strata of women (63.75%). This

finding correlates with that of Ahmad N et al.¹¹ Comparing primigravida with multigravida women, anemia is almost equally distributed among both (50.75%). In studies by Bison et al and Sowmya et al, they have also reported the same distribution (50%).^{2,12} All anemic patients were given iron supplements oral or parenteral. Only 68% took the treatment continuously (Table 5). Rest of them discontinued at different periods.

CONCLUSION

The study covered 2477 pregnant women concerning the anemia characteristics, the study showed that the prevalence of anaemia was 64.59 % and 5% have severe anemia .

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