



Obstetrics And Gynaecology

A STUDY ON THE PREVALENCE OF ANAEMIA AMONG PREGNANT WOMEN IN A TERTIARY CARE HOSPITAL IN KASHMIR VALLEY.

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ABSTRACT

Introduction: Anaemia during pregnancy is a major health problem in South Asian countries and developing countries. World Health Organization (WHO) has defined anaemia in pregnancy as the haemoglobin less than 11g/dl. Predisposing factors of anaemia in pregnancy are young age, grandmultiparity, low socioeconomic status, illiteracy, ignorance and short interpregnancy interval. This study was done to know the prevalence and type of anaemia among pregnant women in Kashmir valley and study the factors that lead to the women being anaemic prior to pregnancy and gradually worsening of anaemia with each trimester. **Materials And Method:** A retrospective observational time based study was conducted from to mid October 2021 to mid January 2022 at Lalla Ded hospital, GMC Srinagar, Kashmir. Relevant patient data, i.e. gestational age, parity, interpregnancy interval, same day haemoglobin estimation was collected from opd record register and analysed. **Results:** The prevalence of anaemia was 82.46%. moderate anaemia was most common (52.13%). The prevalence of anaemia was high among all the trimesters; 71.43% in first trimester, 86.5% in second trimester, 80.5% in third trimester. Although the prevalence of anaemia was high in both primigravidae (76.72%) and multigravidae (85.51%), the prevalence of anaemia among primigravidae was less than multigravidae. Mild anaemia was more prevalent in primigravidas (24.66%) than multigravidas (19.56%) whereas moderate and severe anaemia was more in multigravidas. With interpregnancy interval of < 1yr, there was high incidence of moderate anaemia (85.71%). Whereas it was 31.25% when interpregnancy interval was between 1-<2yr. **Conclusion:** Most women enter pregnancy in an anaemic state, which is worsened as pregnancy progresses. Iron supplementation helps in decreasing the severity of anaemia, however the current measures are inadequate as high percentage of women in the third trimester suffer from anaemia (80.5%). Multiparity and interpregnancy interval < 1 yr was found to be important risk factors for anaemia.

KEYWORDS : Anaemia, high risk pregnancy, women health.**INTRODUCTION:**

Anemia during pregnancy is a major health problem in South Asian countries and developing countries.¹ World Health Organization (WHO) has defined anaemia in pregnancy as the haemoglobin (Hb) concentration of less than 11g/dl.² Sowmya G et al, in their study found the prevalence of anemia in pregnancy in India as high as 64.5%.³ About half of all global maternal deaths due to anemia occur in South Asian countries, out of which India contributes to 80%.⁴ The commonest type of anaemia is iron deficiency accounting for 50% of anaemia in women worldwide.^{5,6} More than 70% of pregnant women suffer from nutritional anemia in South East Asia.⁷ 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.^{8,9}

Other predisposing factors of anaemia in pregnancy are young age, grandmultiparity, low socioeconomic status, illiteracy, ignorance and short interpregnancy interval¹⁰. The current study was done to know the prevalence and type of anaemia among pregnant women in Kashmir valley and to study the factors that lead to the women being anaemic prior to pregnancy and gradually worsening of anaemia with each trimester, as the pregnancy progresses.

MATERIALS AND METHOD:

A retrospective observational time based study was conducted from mid October 2021 to mid January 2022 to at Lalla Ded hospital, GMC Srinagar, Kashmir. Relevant patient data, eg: gestational age, parity, interpregnancy interval, same day haemoglobin estimation was collected from opd record register and analysed in Microsoft excel sheet.

Inclusion Criteria:

All pregnant patients who reported to OPD and whose records were available and complete.

Exclusion Criteria:

Incomplete records Same day haemoglobin estimation not done Patients having bleeding disorders

RESULTS:

Total sample size =211

Table 1: Prevalence of anaemia

Anaemia	No. of patients	Percentage
Present	174	82.46%
Absent	37	17.53%

This depicts very high prevalence of anaemia among pregnant women in our population.

Table 2: Type of anaemia

No. anaemia	Mild	moderate	severe
37 (17.53%)	45 (21.32%)	110 (52.13%)	19 (9%)

Table 3: Incidence of anaemia in each trimester

Pregnancy trimester	Anaemia present	Anaemia absent	Total	percentage
First	5 (71.43%)	2 (28.57%)	7 (3.3%)	100%
Second	69 (86.5%)	11 (13.75%)	80 (37.91%)	100%
Third	100 (80.5%)	24 (19.35%)	124 (58.76%)	100%
Total	174	37	211 (100%)	

Among all the women in the study, 3.3% were in the first trimester, 37.91% in second trimester and 58.76% in the third trimester. In the first trimester 28.57% women did not suffer from anaemia. This signifies that 71.43% were anaemic prior to pregnancy since pregnancy does not cause anaemia in the first trimester.

Table 4: Type of anaemia according to each trimester of pregnancy

Pregnancy trimester	Mild	Moderate	severe	No anaemia	Total
First	1 (14.2%)	4 (57.14%)	0 (0%)	2 (28.57%)	7 (3.3%)
Second	23 (28.75%)	39 (48.75%)	7 (8.75%)	11 (13.75%)	80 (37.91%)
Third	20 (16%)	67 (54%)	13 (10.4%)	24 (19.35%)	124 (58.76%)

Among all the trimesters, moderate anaemia was the most prevalent type of anaemia, 57.14% in first trimester, 48.75% in second trimester and 54% in third trimester.

Table 5: Co relation of Parity and Anaemia

Parity	Anaemia present	Anaemia absent
Primi	46 (76.72%)	17 (23.28%)
Multi	118 (85.51%)	20 (14.49%)

Although the prevalence of anaemia was high in both primigravida (76.72%) and multigravida (85.51%), the prevalence of anaemia among primigravida was less than multigravida.

Table 6: co relation of parity and type of anaemia

Parity	mild	Moderate	severe	No anaemia	Total
Primi	18 (24.66%)	32 (43.83%)	6 (8.21%)	17 (23.28%)	73
Multi	27 (19.56%)	78 (56.52%)	13 (9.42%)	20 (14.49%)	138

Mild anaemia was more prevalent in primigravida (24.66%) than multigravida (19.56%) whereas moderate and severe anaemia was more in multigravida as compared to primigravida.

Table 7: Pregnancy interval and anaemia

	mild	moderate	severe	No anaemia	Total
< 1yr	1 (14.2%)	6 (85.71%)	0	0	7
1-<2 yrs	3 (18.75%)	5 (31.25%)	4 (25%)	4 (25%)	16
2-<3yrs	9 (29.03%)	18 (58.06%)	2 (6.45%)	2 (6.45%)	31
>=3yrs	14 (16.66%)	49 (58.33%)	7 (8.33%)	14 (16.66%)	84

73 participants were primigravida, remaining 138 participants were evaluated for interpregnancy interval. With interpregnancy interval of < 1yr, there was very high incidence of moderate anaemia (85.71%). Whereas it was 31.25% when interpregnancy interval was between 1-<2yr.

DISCUSSION:

In our study the prevalence of anaemia was found to be very high (82.46%). Among all pregnant women 52.13% had moderate anaemia which was most common type. In the study conducted by Sarala V. et al.¹¹ among south indian women, the percentage of anaemia in pregnant women was 62% of which 40% were mildly anemic, 55% were moderately anemic and 5% were severely anemic.

When analysed according to each trimester, the prevalence of anaemia was very high among all the trimesters; 71.43% in first trimester, 86.5% in second trimester, 80.5% in third trimester. In the study conducted by Esther Ijeoma et al.¹², of 8635 (86.4%) women who were anaemic, 1647 (19.07%), 5036 (58.32%) and 1952 (22.61%) were seen in the first, second and third trimesters respectively.

Moderate anaemia was most common in all trimesters, 57.14% in first trimester, 48.75% in second trimester and 54% in third trimester. Although the prevalence of anaemia was high in both primigravida (76.72%) and multigravida (85.51%), the prevalence of anaemia among primigravida was less than multigravida. Mild anaemia was more prevalent in primigravida (24.66%) than multigravida (19.56%) whereas moderate and severe anaemia was more in multigravida. This may be attributed to pregnancies, blood loss at delivery, and poor compliance to iron supplementation during pregnancy and postpartum. In the study conducted by Mishu Mangla et al.¹³, among 850 pregnant women, the prevalence of anaemia was very high in both primigravida and multigravida, however severe and very severe anaemia was found in multiparous women and more so in those whose current pregnancy was third or higher.

With interpregnancy interval of < 1yr, there was very high incidence of moderate anaemia (85.71%). Whereas it was 31.25% when interpregnancy interval was between 1-<2yr. Moderate anaemia was present in 58.06% in 2-<3yr and 58.33% >=3yr. This depicts that the current measures of iron supplementations are inadequate as even when interpregnancy interval was >= 3yrs, majority of the women were found to be moderately anaemic. The need of the hour is iron supplementation not only during pregnancy but also on daily basis as poor dietary intake of iron rich foods, blood loss with each menstrual cycle etc. all contribute to anaemia which worsens during pregnancy. However interpregnancy interval of < 1 yr was found to have the highest incidence of moderate anaemia. However, in the study conducted by Mishu Mangla et al.¹³ where 72.4% of pregnant females who had their last delivery or abortion 3 years or more prior to this pregnancy had mild anaemia. Majority of cases of severe and very severe anaemia were again found in females with a birth interval of less than 1 year.

CONCLUSION:

The prevalence of anaemia among pregnant women is very high (82.46%) in our population. Moderate anaemia was the most common type of anaemia among all trimesters (52.60%). Most women enter pregnancy in an anaemic state, which is worsened as pregnancy

progresses. Iron supplementation helps in decreasing the severity of anaemia, however the current measures are inadequate as high percentage of women in the third trimester suffer from anaemia (80.5%). Multiparity and interpregnancy interval < 1 yr was found to be important risk factor for anaemia

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