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ANEMIA IN PREGNANCY IN TERTIARY CARE CENTRE OF TELANGANA- A CLINICO – HAEMATOLOGICAL STUDY AT GMC SURYAPET.

Pathology

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ABSTRACT

AIM: To study incidence and various types of anemia in pregnant women (gravida and Trimester) .

METHODOLOGY: 570 cases of pregnant women with low hemoglobin were included. All the haematological parameters were obtained through analyzer. Peripheral smear stained with Leishman's stain was evaluated for morphology.

RESULTS: Out of 570 cases of anemia, we found 377 patients (66.8%) to be diagnosed as Iron Deficiency Anemia, Megaloblastic Anemia 131 cases (22.10%) and Dimorphic Anemia 62 cases (11%).

CONCLUSION: The incidence of anemia in pregnancy is high. Moderate to severe anemia is common in third trimester.In 570 cases studied, 377 cases(66.8%) belonged to Iron deficiency anemia,131(22.2%) were diagnosed as Megaloblastic anemia.62(11%) were diagnosed as Dimorphic anemia.Anemia is common in the age group between 21 to 30 years due to repeated and short interval of pregnancies.

KEYWORDS

Iron deficiency anemia;gravida

INTRODUCTION

Haemoglobin level is less than the normal range for age and sex of a particular age group it is defined as anemia[1].

Apart from the risk to the mother, it is also responsible for increased incidence of premature births, low birth weight babies and high perinatal mortality.[2]

In pregnant women WHO defined Anemia as a reduction in Haemoglobin level <11g/dl. It occurs in 40-80% of the pregnant women. Iron and Folic acid deficiencies, malaria, intestinal parasitic infections and hemoglobinopathies are the principal causes of anemia in pregnancy.[3]

Anemia is responsible for 20% maternal deaths in the third world countries.[4]

Anemia due to Iron deficiency is the commonest malnutrition disorder seen throughout the world and in India. The single most important cause for the widespread Iron deficiency anemia in our country is inadequate iron intake in the habitual diets compared with the poor bioavailability of dietery iron.[5] Normal Range of haemoglobin for Men- 13.6 – 17.2 g/dl, women-12-15g/dl[6].In the lower income group, 40-60% of the urban and 50 - 70% of the rural women are anemic during pregnancy.[7]

GRADING OF ANEMIA[8]

Depending upon haemoglobin concentration anemias are graded into following types. Mild≥ 10 g/dl (cut off values), Moderate7 to 9.9 g/dl, Severe<7 g/dl.

METHODLOGY

The present study was carried out in pregnant women who attended the out patient and inpatient department of OBG from march 2017 to febraury2019 at Government medical college and Hospital, suryapet. A detailed clinical history of each patient was recorded and a thorough clinical examination was performed. Venous blood was collected in all women with aseptic precautions in EDTA anticoagulant for hematological investigations

The haematological investigations were performed on Sysmex with standard calibration using fresh whole blood. Peripheral blood smear study was performed on each of these patients. A good peripheral smear was made and the blood film was stained by Leishman's stain.

Inclusion Critera

Pregnant women whose haemoglobin levels are less than 11gm%.

Exclusion Criteria

- Pregnant women who had already received blood transfusion.
- Anemias of chronic disorders and haematological malignancies.

STATISTICAL METHODS

Descriptive statistical analysis has been carried out in the present study.

RESULTS

Out of 570,In Age wise distribution of anemic cases in pregnancy, in the age group of 18-20 years, 119 cases(20.8%) , 21-25 years, 189 cases(33.8%) , 26-30 years, 211 cases(36.2%) , 31-35 years, 51 cases(9.2%) were anemic. Maximum no:of cases were found in the age group of 21-30 years (70%) **[Table no 1]**

Table 1: Age distribution of patients studied

Age in years	Number of patients	%
18-20	119	20.8
21-25	189	33.8
26-30	211	36.2
31-35	51	9.2
Total	570	100.0
Mean ± SD	24.70±4.28	

Among the 570 cases studied, no:of primigravida were 250 cases(44%). Gravida II were 242 cases(42.2%).Gravida III were 65cases (11.4%),Gravida IV were 13 (2.4%)**[Table 2]**

Table 2: Gravida and Anemia

Obstetric Index	Number of patients	%
Gravida		
I	250	44.0
II	242	42.2
III	65	11.4
IV	13	2.4
Total	570	100.0

In trimester wise distribution of anemia, 45 cases were seen in first trimester(8%), 216 cases were seen in second trimester(38.2%),309 cases were seen in third trimester(53.8%) **[TABLE 3]**

Table 3: Trimester and Anemia

Trimester	Number of patients	%
I	45	8.0
II	216	38.2
III	309	53.8
Total	570	100.0

DISCUSSION

Southeast Asia have a high prevalence of anemia, the condition is worse in some rural areas of India. The reason for this may be due to differences in socio-cultural, economic and geographical conditions [9].

. Nearly half the pregnant women in the world are estimated to be

anemic,52% compared to 23% in industrialized countries.[10] In our present study we included 570 cases of pregnant women whose hemoglobin was less than 11 gm%.

Anemia is one of the most common medical condition met during pregnancy. This was noted in most of the women attending the antenatal clinic. Iron deficiency anemia accounted for 66.8%, and dimorphic anemia 11%, and megaloblastic anemia accounts for 22.2% in our present study.

If we compare the age wise distribution with otherstudies,In the present study, the age wise distribution of anemia,maximum no:of cases were observed between 21-30 years accounting for 60%. The present study correlates closely to observations by Ahmad N [11] (51.8%), Pai PM [12](62%) , Haniff J et al[10] (91.5%).

If we compare trimester wise distribution with other studies,In the present study, 8% were in first trimester, 38.2% were in second and 53.8% were in third trimester. Our present study correlates with Rasheed P. et al [13] found in his series 27.7% in first trimester, 37.3% in second trimester and 50.2% in third trimester. Belgnaou S [14]found in his series 19.7% in first trimester, 46.7% in second trimester and 33.6% in third trimester. Comparing various authors studies, it is seen that majority of cases are in third trimester.

Gravida wise distribution of anemic cases in comparision with other studies, In our present study we found 44% primigravida, 53.6% G2 to G3 and 2.4% of G4 to grand multi gravida. Our present study correlates with Haniff J et al[26] found 27.42% of primigravida, 62.77% of G2 to G3 and 9.79% of G4 to grand multi gravid. Satyanarayana M [15]found 16% of primigravida, 74% of G2 to G3 and 10% of G4 to grand multi gravida. Sidhu GS [16] found 15.15% of primigravida, 57% of G2 to G3, 27% of G4 to grand multigravida.

CONCLUSION

The incidence of anemia in pregnancy is high. Moderate to severe anemia is common in third trimester.In 570 cases studied, 377 cases(66.8%) belonged to Iron deficiency anemia,131(22.2%) were diagnosed as Megaloblastic anemia.62(11%) were diagnosed as Dimorphic anemia.Anemia is common in the age group between 21 to 30 years due to repeated and short interval of pregnancies.

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