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Research Article

**STUDY TO DETERMINE THE VARIOUS DEMOGRAPHIC
 GRADING OF ANEMIA AND ITS INCIDENCE AMONG
 PREGNANT FEMALES**

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Abstract:

Aim: To assess the magnitude of anemia in pregnant women.

Study design: A retrospective study.

Place of work: In the Obstetrics and Gynecology department Unit II of Services Hospital Lahore for one year duration from March 2019 to March 2020.

Methods: For prenatal assessment, a retrospective study was conducted on 200 women who were admitted at Gynecology and Obstetrics department were selected. The records of all patients were examined. It was divided into groups with mild, moderate and severe anemia according to Hb level.

Results: 200 pregnant women were included in the study. Anemia was found in 168 (84%) of them. 91 (82.7%) were 26-35 years old. Out of the pregnant women who were evaluated at more than 37 weeks of gestation, 84.56 were anemic as compared 82.35% of women at less than 37 weeks.

Conclusion: The incidence of anemia during pregnancy in underdeveloped countries is 84% compared to 56% reported by the UNO. The incidence of anemia is higher in middle reproductive age and pregnancy.

Keywords: anemia, pregnancy term, Gynecology.

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INTRODUCTION:

Anemia is a common eating disorder in the world. According to literature, about 700 million people have a clear or hidden iron deficiency associated with poor nutrition in the body. High-risk groups include pregnant women (50-60%) and women of childbearing age (20-40%). Gestational anemia indicates a decrease in the fetal hemoglobin level. Other nutritional deficiencies, such as folic acid, contribute mainly to iron deficiency. During pregnancy, the number of cells that divide quickly due to fetal growth and increase the need for folic acid increases. If folate is not taken sufficiently, it will cause a serum deficiency, resulting in a decrease in erythrocytes. Anemia may be mild (Hb 10-10.9 mg / dl), moderate (08-09.9 mg / dl) or severe (<8.0 mg / dl). Anemia can be asymptomatic, mild to moderately symptomatic or severely symptomatic. Common symptoms of anemia include general malaise, easy fatigue, pain and shortness of breath in exertion. The initial assessment of an anemic pregnant woman should include medical history, physical examination and measurement of erythrocytes, serum iron and ferritin. The measurement of the latter has the highest sensitivity and specificity in diagnosing iron deficiency. The frequency of low Hb levels during pregnancy is particularly high in underdeveloped countries. Poor socio-economic status, lack of self-

awareness and lack of education worsen the situation with poor prenatal care. This led to increased maternal and fetal mortality, dead miscarriages and preterm births. This study was conducted to assess the extent of anemia in pregnant women who later went to the hospital for control or delivery.

MATERIAL & METHOD:

This study was applied retrospectively to 200 patients who were admitted at the Obstetrics and Gynecology department Unit II of Services Hospital Lahore for one year duration from March 2019 to March 2020. All patients were reviewed for age, gestational age, and level of education, social status and rural urban background. Sequential sampling technique is not possible. The Hb level was confirmed by a spectrophotometer. Patients were classified as mild anemia (Hb: 10.0-10.9 gm / dl), moderate (Hb: 8.02-9.9 gm / dl) and severe (Hb: <8.0 g / dl) according to Hb levels. The data were entered and analyzed using the SPSS-11 computer program.

RESULTS:

The age of the surveyed from 200 pregnant women ranged from 17 to 45 years. The average age was 28 years. Of these 200 pregnant women, 168 had anemia and 32 were in the normal Hb range.

Table I: Distribution of anemia (n=200)

| Subjects | Frequency | %age |
|--------------|-----------|-------|
| Total Anemic | 168 | 84 |
| Severe | 13 | 7.73 |
| Moderate | 88 | 52.38 |
| Mild | 67 | 39.88 |
| Normal | 32 | 16 |

HB levels in various age groups were analyzed as normal, mild, moderate and severe, and severe anemia was observed relatively more frequently in the elderly group as shown in the table below.

Table II: Distribution anemia with reference to age

| Age | 15-25 yrs | 26-35 yrs | 36-45 yrs |
|----------|------------|------------|-----------|
| Severe | 4(6.15%) | 5(5.49%) | 4(33.33%) |
| Moderate | 39(60%) | 45(49.45%) | 4(33.33%) |
| Mild | 22(33.84%) | 41(45.05%) | 4(33.33%) |
| Normal | 11(14.47%) | 19(17.27%) | 2(14.28%) |
| Total | 76 | 110 | 14 |

Anemia was also analyzed during pregnancy and early pregnancies, as shown in Table III below.

Table III: Distribution of anemia with reference to gestational age

| Gestation age | Term (>37 weeks) | Preterm (<37 weeks) |
|---------------|------------------|---------------------|
| Severe | 6(4.76%) | 7(16.66%) |
| Moderate | 67(53.17%) | 21(50%) |
| Mild | 53(42.06%) | 14(33.33%) |
| Normal | 23(15.43%) | 9(17.64%) |
| Total | 149 | 51 |

DISCUSSION:

Anemia is an important public health problem worldwide. Despite widespread economic and scientific development, more than a quarter of the world's population is anemic. About half of this load is caused by iron deficiency. The most vulnerable group among affected women are pregnant women due to iron loss due to menstruation or increased iron needs during pregnancy. A regular diet does not meet this increased need because it contains insufficient amounts and / or low bioavailability. Causes of anemia include genetic factors, nutritional deficiencies and infectious agents. Iron deficiency is probably the most common and most important cause of pregnancy anemia, as pregnancy-related physiological changes suggest a need for additional iron overload required for transmission to the fetus⁶. Variable frequent rates of anemia during pregnancy have been reported in several studies and range from 33% to 75%. Anemia is a common problem in less developed countries. Low Hb levels are common in pregnant women. WHO recommended a cut-off value of 11 g / dl for hemoglobin to identify anemia at any time during pregnancy. In this study, the incidence of anemia in pregnant women was 84%, while UNO reported 56% of anemia in pregnant women in the low-income group. Normal physiological changes in later stages of pregnancy also affect hemoglobin-related hemoglobin levels. Severe maternal anemia is associated with complications such as prematurity, low, low birth weight, and stillbirth, but mild to moderate iron deficiency has no significant effect on fetal hemoglobin. Iron supplements among women not only improve physical performance, but also lead to better results for mother, newborn, infant and childhood.

CONCLUSION:

Our study found that the frequency of anemia in pregnant women in our case was significantly higher than reported in the literature. With the help of women's health visits, improvement at door level is needed to correct anemia, since most women visit the hospital later in pregnancy. Epidemiological assessment, selection of appropriate interventions and continuous monitoring for effectiveness.

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