



Prevalence of Anemia among Pregnant Women Living In Bahawalpur

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ABSTRACT

Objective: To determine prevalence of anemia among pregnant women living in Bahawalpur

Design & duration: It is a cross sectional study of descriptive type completed in duration of six months.

Setting: It is a multicentric study conducted in gynecology and obstetrics department of Bahawal Victoria hospital Bahawalpur and Civil hospital Bahawalpur.

Patients & methods: pregnant women living in Bahawalpur City reporting to Bahawal Victoria hospital and Civil Hospital Bahawalpur in and out-patient door. After history and complete examination ultrasonography for fetal well being done. Hemoglobin level of all cases in study group were tested. Non-probability consecutive sampling technique was used. All data was documented on a pre designed performa. Data was analyzed using SPSS software. Percentage, frequency, means and standard deviation were calculated. Chi square test was applied. Women having co-morbidities or admitted in ICU were not included in the study.

Results: Total 850 cases were studied out of which 300(35.3%) pregnant women were anemic.. There were 25% women primigravida, 36.7% women were gravida-2 and 38.3% women were gravida \geq 3. There were 3.7% women having Hb below 7g/dl, 42% between 7-8g/dl, 34.7% women having Hb 8.1-9 g/dl and 19.7% women between 9.1-10 g/dl.

Conclusion: Anemia is a much common problem among pregnant women especially in multi-gravida women. Moderate type of anemia is much common than mild and severe form.

Key words: Anemia, Pregnant women, Primigravida, Multi-gravida

INTRODUCTION

During pregnancy many physiological changes occur in women body.¹⁻³ Blood plasma volume is increased due to hormonal changes, hence Hb level is decreased. Serum level of hematocrit, RBCs count, ferritin and iron concentration is decreased. In pregnancy iron requirement is increased up to 2.5-6.6 mg/day.⁴⁻⁶ If demand of iron is not compensated then anemia is developed. About 30-

50% of pregnant women face iron deficiency anemia. It is a medical condition in which hemoglobin concentration in blood is lower than normal level according to age gender and environment resulting in decreased oxygen carrying capacity in blood.^{7,8} According to WHO anemia is defined as Hb concentration less than 11 g/dl and in severe anemia it is <7g/dl. Most common type is iron deficiency anemia in 90% patients and folic acid anemia in 5% cases.⁹⁻¹¹ Prevalence of pregnancy induced anemia is higher in developing and underdeveloped countries. According to K. Kalaivani et al prevalence of anemia in South Asian countries is highest in the world. Its high prevalence in these countries is due to low socioeconomic status, low literacy rate, poor hygiene, eating habits and other cultural factors.¹²⁻¹⁵

PATIENTS & METHODS

This is a cross sectional study, conducted in gynecology and obstetrics department of tertiary care hospitals, Bahawal Victoria Hospital Bahawalpur and Civil Hospital Bahawalpur. Study was started in January and completed in June 2020 after six months duration. Pregnant women living in Bahawalpur City reporting to Bahawal Victoria hospital and Civil Hospital Bahawalpur in and out-patient doors. After history and complete examination ultrasonography for fetal well being done. Hemoglobin level of all cases in study group were tested. Non-probability consecutive sampling technique was used. All data was documented on a pre designed performa. Data was analyzed using SPSS software. Percentage, frequency, means and standard deviation were calculated. Chi square test was applied. Women having co-morbidities or admitted in ICU were not included in the study. Pregnant women of all trimesters were included in the study. Other women receiving therapy for anemia, or history of massive hemorrhage, history of recent blood transfusion or chronic medical illness such as thalassemia, chronic renal failure, chronic liver disease and rheumatoid arthritis were excluded from the study.

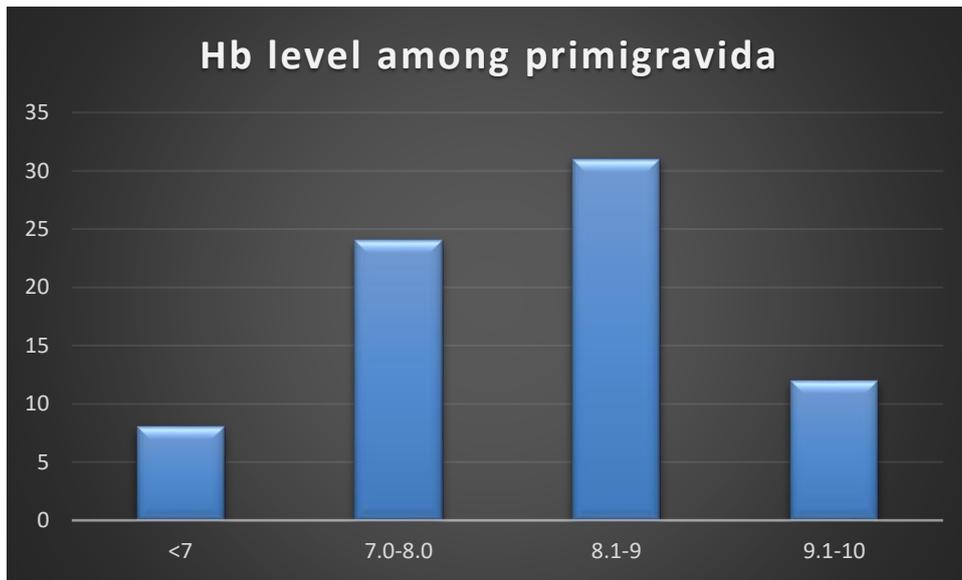


RESULTS

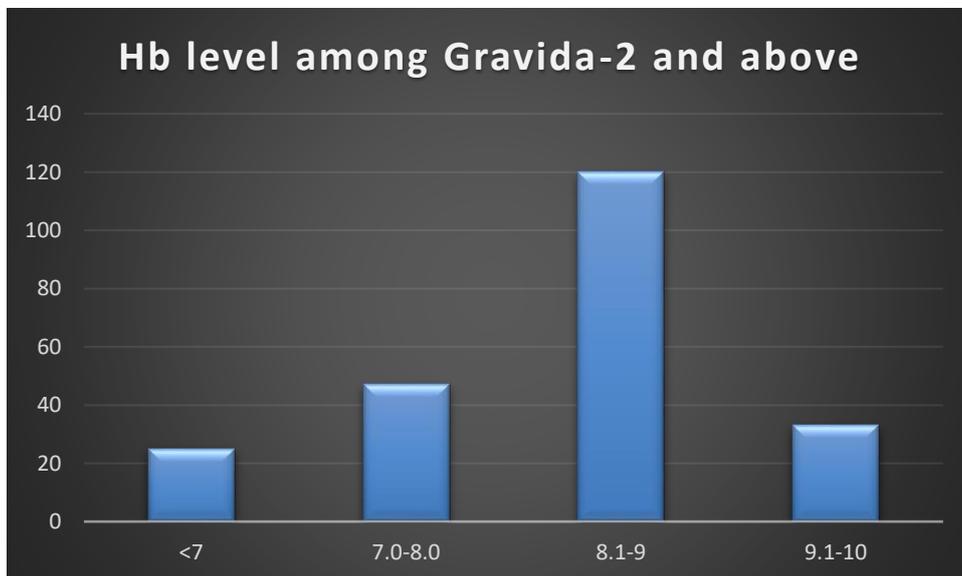
Total 850 cases were studied out of which 300(35.3%) pregnant women were anemic. There were 75(25%) women primigravida, 110(36.7%) women were gravida-2 and 115(38.3%) women were gravida \geq 3. There were 11(3.7%) women having Hb below 7g/dl, 126(42%) between 7-8g/dl, 104(34.7%) women having Hb 8.1-9 g/dl and 59(19.7%) women between 9.1-10 g/dl.

(Table-1) Hb level among cases in study group

Hemoglobin level (g/dl)	N	%
<7	11	3.7
7-8	126	42
8.1-9	104	34.7
9-10	59	19.7



(Figure-1) Hb level among primigravida (n=75)



(Figure-2) Hb level among gravida \geq 2 (n=225)

DISCUSSION

This study was conducted to determine frequency of anemic pregnant women in Bahawalpur city. In this study prevalence was 35.3%. Prevalence rate ranges from 35-75% in different countries.¹⁶⁻¹⁸ In

south Asian countries maternal morbidity and mortality is higher than other countries. According to previous studies conducted in India prevalence of pregnancy induced anemia was 33-100%.¹⁹ In India anemia is second most common cause of





maternal death contributing 20% of total maternal deaths.²⁰ During pregnancy many physiological changes occur in women body. Blood plasma volume is increased due to hormonal changes, hence Hb level is decreased. Serum level of hematocrit, RBCs count, ferritin and iron concentration is decreased. In pregnancy iron requirement is increased up to 2.5-6.6 mg/day.^{21,22} If demand of iron is not compensated then anemia is developed. About 30-50% of pregnant women face iron deficiency anemia. It is a medical condition in which hemoglobin concentration in blood is lower than normal level according to age gender and environment resulting in decreased oxygen carrying capacity in blood. This is a cross sectional study, conducted in gynecology and obstetrics department of tertiary care hospitals, Bahawal Victoria Hospital Bahawalpur and Civil Hospital Bahawalpur. Study was started in January and completed in June 2020 after six months duration. Pregnant women living in Bahawalpur City reporting to bahawal Victoria hospital and Civil Hospital Bahawalpur in and out-patient doors. After history and complete examination ultrasonography for fetal well being done. Hemoglobin level of all cases in study group were

tested. Non-probability consecutive sampling technique was used. Total 850 cases were studied out of which 300(35.3%) pregnant women were anemic. There were 75(25%) women primigravida, 110(36.7%) women were gravida-2 and 115(38.3%) women were gravida ≥ 3 . According to K. Kalaivani et al prevalence of anemia in South Asian countries is highest in the world. Its high prevalence in these countries is due to low socioeconomic status, low literacy rate, poor hygiene, eating habits and other cultural factors.²³ When a lady has already depleted iron stores and she enters into pregnancy, anemia worsens leading to many complications. As a result maternal and fetal mortality rate is increased.²⁴

CONCLUSION

Due to poor diet and hygiene anemia is a much common problem among pregnant women in our population, especially in multi-gravida women. Moderate type of anemia is much common than mild and severe form. Adequate maternal screening for anemia is necessary. Women should be educated about diet and hygiene. Antenatal care plays important role in this aspect.

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