

Prevalence of Anemia in Pregnant Women – An Observational Survey Study**Dr. Pratibha Ambadas Kale.**Assistant Professor (Lecturer).
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CSMSS Ayurved Mahavidya, Abad**Abstract:**

In today's era the lifestyle of people is changed drastically. People don't follow regular eating habits in day to day life. Due to this they become viable for various nutritional disorders. Anemia is one such condition. Anemia is a decrease in the total amount of red blood cells (RBCs) or hemoglobin in the blood or a lowered ability of the blood to carry oxygen. It is one of the most important health problems throughout the world. Nutritional anemia is one of India's major public health problems. The prevalence of anemia ranges from 33% to 89% among pregnant women and is more than 60% among adolescent girls. In Adolescence age there is more prevalence of Iron deficiency anemia. So purpose of selection of this topic was to know whether the pregnant women in age group above 18 years are Anemic. At the end of study it was found that 80 % pregnant women suffer from anemia. Prevalence of anemia in pregnant women was more in 2nd and 3rd trimester of pregnancy. So proper regular screening, guidance and treatment should be given to the pregnant women.

Key Words: Anemia, Pregnant Women.**Introduction:**

Pregnancy is a physiological condition in a woman's life. It is a natural phenomenon hence does not require any treatment. Treatment is done only if there is any pathological condition or disease. In today's era the lifestyle of people is changed drastically. People don't follow regular eating habits in day to day life. Due to this they become viable for various nutritional disorders. Anemia is one such condition. Anemia is a decrease in the total amount of red blood cells (RBCs) or hemoglobin in the blood or a lowered ability of the blood to carry oxygen¹. It is one of the most important health problems throughout the world. It is defined as reduced hemoglobin concentration in blood below the normal range for the age & sex of the individual². Nutritional anemia is one of India's major public health problems. The prevalence of anemia ranges from 33% to 89% among pregnant women and is more than 60% among adolescent girls. The World Health Organization (WHO) defines adolescence as the period of life between 11 to 19 years³. These are most formative years in terms of Physical, intellectual, emotional, psychological, behavioral development. In

Adolescence age there is more prevalence of Iron deficiency anemia.

Purpose of Selection of this Topic:

Anemia in pregnancy is a global health problem. Various risk groups are prone to anemia and it leads to long term consequences. Among that pregnant women are more vulnerable and neglected as far as their nutrition and health are concerned. So the purpose of selection of this topic was to know whether the pregnant women of age above 18 years are Anemic. So that proper guidance and treatment can be given to the affected participants.

Aim And Objectives:

1. Estimate prevalence of anemia in pregnant women.
2. Estimate prevalence of anemia according to the trimester of pregnancy.

Review of Literature:

Anemia is defined as reduced hemoglobin concentration in blood below the normal range for the age & sex of the individual². Pathophysiology of Anemia is as follows Hemoglobin count decreases; it decreases the oxygen carrying capacity of the blood. This initiates compensatory physiological adaptations

i.e. increased release of oxygen from Hemoglobin, Increased blood flow to the tissue, Maintenance of blood volume and Redistribution of blood flow to maintain cerebral blood supply. Symptoms are Tiredness, weakness, shortness of breath, Easy fatigability, generalized muscular weakness, Lethargy and Headache.

Tests used for determine Anemia:

- Hb count
- RBC count
- Hematocrit (PCV)
- Absolute value (MCV, MCH, MCHC).

Various tests are performed for various types of anemia:

- Iron deficiency anemia – MCV, MCH, MCHC are decreased.
- Thalassemia – MCV, MCH, MCHC are decreased
- Anemia due to acute blood loss & hemolytic anemia – MCV, MCH, MCHC within normal limits.
- Megaloblastic anemia – MCV increased above normal range.²

Material And Methods:

Inclusion Criteria

1. Age from 18 years
2. Pregnant Women.

Exclusion Criteria

1. Age below 18 years.

Study Design – An observational study

This is an observational study to determine the prevalence of Anemia in pregnant women. Complete blood count, blood test investigation was performed of all the participants to determine the hemoglobin values. According to the hemoglobin values they were categorized as Healthy, Mild Anemic, Moderate Anemic and Severe Anemic.

According to the hemoglobin values, data was collected percentage calculation was done with reference to the values and this information is presented in the form of tables and Figures.

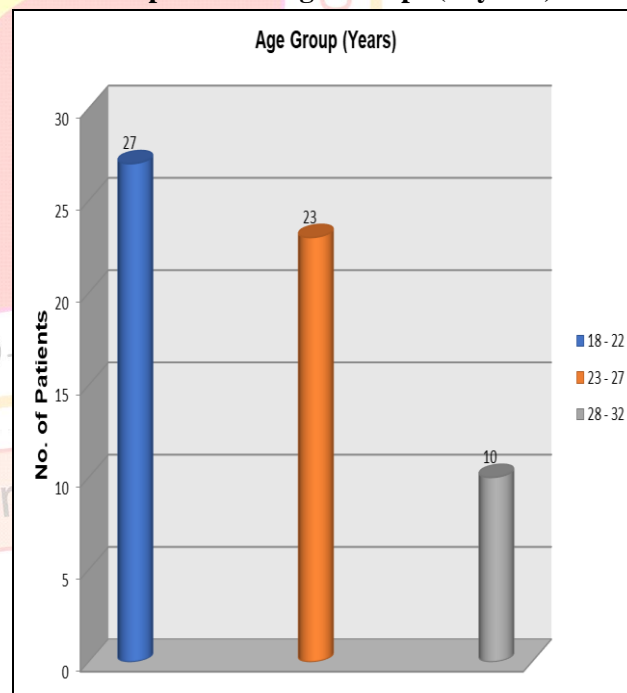
Observations And Result

Table no. 1 – Age groups (in years) wise distribution

Age Groups (in years)	No. of Pregnant Women	Percentage
18 – 22	27	45.00%
23 – 27	23	38.33%
28 – 32	10	16.67%
Total	60	100 %

The above table shows that - majority of the pregnant women i.e. **45 %** were observed of age group 18 – 22 years, followed by **38.33 %** pregnant women were of age group 23 – 27 years, and **10 %** pregnant women were of age group 28 – 32 years.

Graph no. 1 – Age Groups (in years)



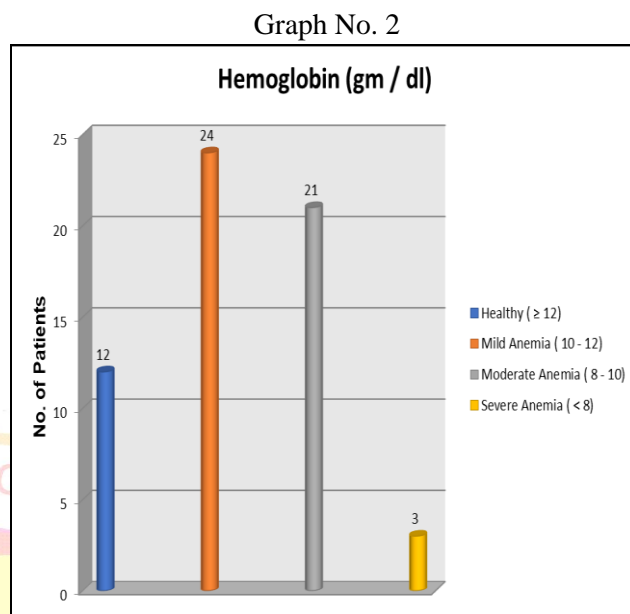
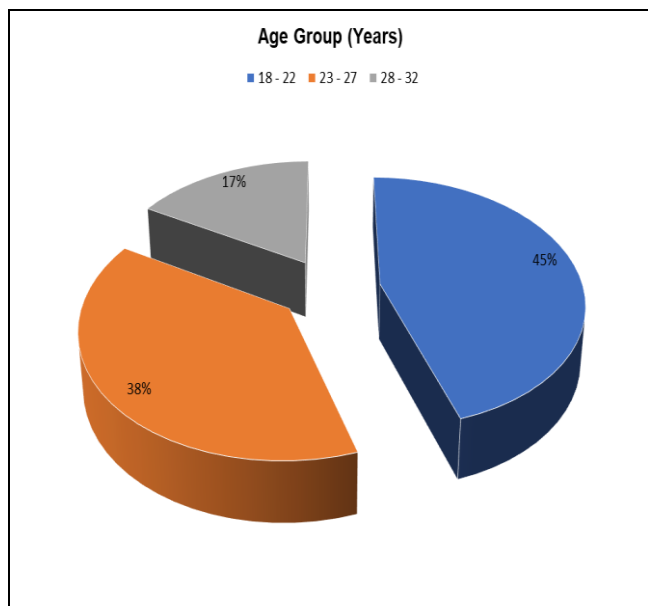


Table no. 2 – Hemoglobin percentage (gm / dl) wise distribution

Hemoglobin (gm/dl)	No. of Pregnant Women	Percentage
Healthy (≥ 12)	12	20.00%
Mild Anemia (10 – 12)	24	40.00%
Moderate Anemia (8 – 10)	21	35.00%
Severe Anemia (< 8)	03	05.00%
Total	60	100 %

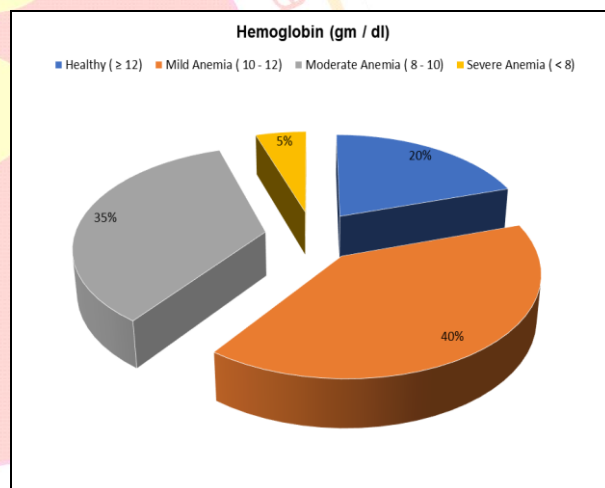


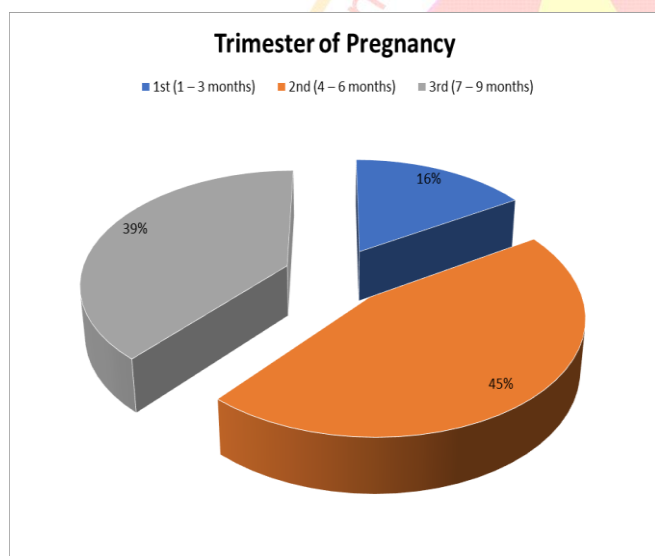
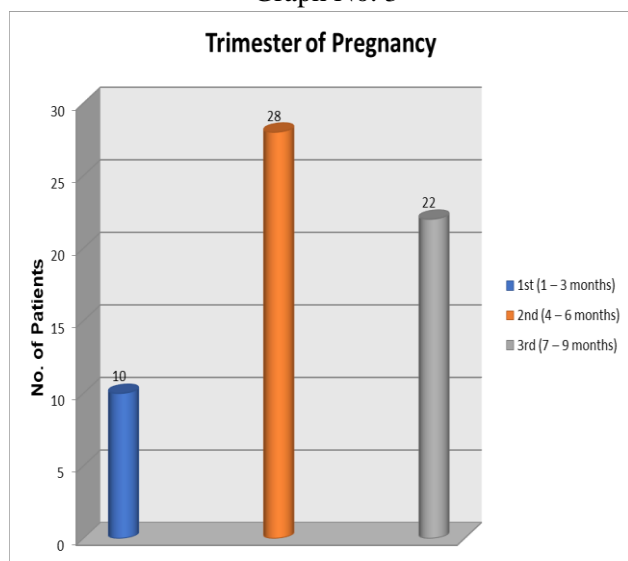
Table no. 3 – Trimester of Pregnancy wise distribution

Trimester of Pregnancy	No. of Pregnant Women	Percentage
1 st (1 – 3 months)	10	16.67%
2 nd (4 – 6 months)	28	46.67%
3 rd (7 – 9 months)	22	36.67%
Total	60	100 %

The above table shows that - majority of the pregnant women i.e. **40 %** were observed with hemoglobin levels in Mild Anemia (10 – 12) range, followed by **35 %** pregnant women were observed with hemoglobin levels in Moderate Anemia (8 – 10) range, **20 %** pregnant women were observed with hemoglobin levels in Healthy (≥ 12), and **5 %** pregnant women were observed with hemoglobin levels Severe Anemia (< 8).

The above table shows that – majority of the pregnant women i.e. **46.67 %** were in 2nd trimester (4 – 6 months) of pregnancy, followed by **36.67 %** pregnant women were in 3rd trimester (7 – 9 months) of pregnancy, **16.67 %** pregnant women were in 1st trimester (1 – 3 months) of pregnancy.

Graph No. 3



Discussion:

Anemia is a global health problem. It has various effects on health of an individual. It results in stunted growth, reduced attention, memory loss, poor performance, reduced immunity and increased infection rate. Delay in onset of Menarche and menstrual irregularities. Normal values of hemoglobin are above 14 gm/dl in males & above 12 gm/dl in females. Hemoglobin values between 12 – 14 gm/dl is considered as mild anemia, between 10 – 12 gm/dl is considered as moderate anemia and below 10 gm/dl is considered as severe anemia in males. Hemoglobin values between 10 – 12 gm/dl is considered as mild anemia, between 8 – 10 gm/dl is considered as moderate anemia and below 8 gm/dl is

considered as severe anemia in females. Signs of anemia are as follows -

- Pallor – seen in mucous membrane of conjunctiva & skin.
- Cardiovascular system – tachycardia, cardiomegaly, dyspnea on exertion, congestive heart failure.
- Central nervous system – faintness, giddiness, headache, drowsiness, tingling sensation of hands & feet.
- Reproductive system – Amenorrhea, Menorrhagia.
- Urinary system – mild proteinuria.
- Gastrointestinal system – anorexia, flatulence, nausea, constipation, weight loss.
- Retinal hemorrhage.

Pathological causes of anemia are

- Due to blood loss – Acute post hemorrhagic anemia.
- Impaired RBCs formation – Cytoplasmic malnutrition – Iron deficiency due to haem synthesis & Thalassemia due deficient globin synthesis. Malnutrition defect – Megaloblastic anemia due to Vitamin B12 deficiency & folic acid deficiency.
- Morphological – Microcytic hypochromic, Normocytic normochromic & Macrocytic.⁴

Conclusion:

The purpose of selection of this topic was to know whether the pregnant women in age above 18 years are healthy and don't suffer from Anemia. Blood of 60 pregnant women was tested by conducting complete blood count investigation and hemoglobin values were noted. It was found that 48 out of 60 pregnant women were found anemic i.e. **80 %** pregnant women were Anemic. 24 out of 60 pregnant women were found to be Mild anemic. i.e. **40%**, 21 out of 60 pregnant women were found to be Moderate anemic. i.e. **35%**, 3 out of 60 pregnant women were found to be Severe anemic. i.e. **5%**, and only 12 out of 60 pregnant women were Healthy. Anemia in adolescence age can be prevented by proper education & guidance. Anemic persons must be encouraged to take iron rich diet, continuous screening of women who are at risk of Iron

deficiency anemia – heavy menstrual bleeding, worm infestation, low iron diet should be screened for anemia annually & appropriate treatment regimen can be started for its correction.

References:

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