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Etiopathology of Anaemia in Women of Reproductive Age in Ghaziabad

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ABSTRACT:

Anemia is a significant public health issue that affects 30% of the world's population and is thought to affect 2 billion people worldwide (De Maeyer & Adiels Tegman, 1985). The bulk of those afflicted are from the poor countries. The risk of getting anaemia is greatest in children, adolescents, and women who are or who will become pregnant. Our research aims to identify the morphological and etiological forms of anemias that are common among WOMEN OF REPRODUCTIVE AGE GROUP. In order to measure the degree and severity of anaemia in women of reproductive age.

Method: In the current study, 130 women of reproductive age who had anaemia were recruited from the IPD and OPD departments of Santosh Hospital in Ghaziabad.

Result: A total of 130 women of reproductive age participated in the current study, including those who were unintentionally discovered to be anaemic.

Most of the ladies in this study were not pregnant, 66.92% (87), while the remaining women were pregnant, 33.07 percent (43). Moderate anaemia was found to be prevalent in 60.46% of pregnant women and 87.35% of women who were not pregnant. It was shown that 78.46% of women of reproductive age had moderate anaemia overall.

Conclusions: Pregnant women were found to have a high frequency of anaemia (87.35%).

Keywords: Anaemia, Parity.

INTRODUCTION:

Teenage girls, women of childbearing age, pregnant women, and children in low- and middle-income nations are all affected by anaemia, which is a global public health concern. 1 The causes of anaemia 2 are biological, according to a 2017 WHO description.

(Nutritional deficiencies and other forms of malnutrition, growth, physiological state, sex, age, and race); linked to infection and inflammation ("soil-transmitted helminth infections, schistosomiasis, malaria, HIV, tuberculosis, low-grade inflammation"; genetic haemoglobin disorders; and social, behavioural, and environmental factors). When the amount of

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haemoglobin in the blood falls, it is known as anaemia. Haemoglobin is required for the transportation of oxygen to the body's tissues and organs. When haemoglobin levels are low, the amount of oxygen that is available to organs and tissues decreases, which contributes to many of the symptoms that anaemic people experience. The effects of anaemia include general physical weakness, excessive fatigue, and decreased disease resistance. Pregnant women are more vulnerable to anaemia, which can result in early labour and low birth weight. Anemia patients are often at higher risk of morbidity and mortality.

METHODS:

The current study is a cross-sectional, descriptive analysis of 130 reproductive-age women (15–49 years) who reported to the IPD and OPD departments of Santosh Hospital in Ghaziabad with anaemia and those who did not initially come with anaemia but were subsequently diagnosed with it. The trial, which was done between December 2020 and November 2021, comprised women with haemoglobin levels less than 11 g/dl who were between the ages of 15 and 49.

Patients who are willing to consent meet the inclusion criteria. Age range for patients is 15 to 49.

Patients who are unwilling to consent are excluded from consideration. Patients over 49 years old and those under the age of 15.

Gathering of data, A complete clinical examination and a thorough history-taking were both conducted, and the results were noted on the proforma. EDTA tubes were used to collect the necessary amount of venous blood.

Using a Sysmex XN-350 auto analyser, the obtained blood was examined.

RESULTS:

The WHO recommended haemoglobin concentrations for identifying mild, moderate, and severe anaemia in pregnant women.

The following definitions were given for mild, moderate, and severe anaemia: Mild anaemia is Hb 10.0 mg/dl–10.9 mg/dl, while Hb greater than 11.0 mg/dl is considered normal. Hb 7.0 mg/dl–10.0 mg/dl for moderate anaemia. Hb below 7 mg/dl is a sign of severe anaemia. 3We registered 130 women who were of reproductive age in total, and we also got their permission.

Table No. 1: Distribution of anaemia among participants according to their age

Age	**Number**	**Percentage**
< 20 years	**19**	**14.6**
20-30 years	**54**	**41.5**

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30 -40 years	**32**	**24.6**
Above 40 years	**25**	**19.2**
Total	**130**	**100**

Table No.2: Distribution of anaemia according to severity among pregnant women.

Classification of anaemia	**Mild**	**Moderate**	**Severe**	**Total**
Frequencies	**12**	**26**	**5**	**43**
Percentage	**27.90**	**60.46**	**11.62**	**99.98**

Table No.3: Distribution of anaemia according to severity among non-pregnant women.

Classification of anaemia	**Mild**	**Moderate**	**Severe**	**Total**
Frequencies	**1**	76	**10**	**87**
Percentage	**1.14**	**87.35**	**11.49**	**99.98**

DISCUSSION:

As a key outcome indicator, the prevalence of anaemia in both pregnant and non-pregnant women is included in the core set of indicators for the Global Nutrition Monitoring Framework. The Global Nutrition Target 2 calls for a 50% reduction in anaemia among women of reproductive age by 2025. This target's advancement is monitored using the metrics listed below. Anemia in children and women of childbearing age is included in the WHO Global Reference List of 100 Core Health Indicators4. Anemia is a widespread public health issue that affects people of all ages in industrialised and developing nations. In addition to sex, ethnicity and physiological state can affect the normal Hb distribution. There have been suggested new lower limits for normal Hb levels for each race, gender, and age group. Anaemia is not a singular occurrence and typically involves a number of variables. For classification and diagnosis, it is important to take into account the patient's medical history, underlying illness mechanisms, and hematologic markers. An additional third of patients have anaemia as a result of a chronic illness, while a third of patients have anaemia as a result of a nutritional deficiency, such as an iron, folate, or vitamin B12 deficiency. The term "unexplained anaemia" refers to anaemia that affects one-third of individuals but cannot be attributed to a specific pathological process or underlying disease. Unknown anaemia may result from a prolonged subclinical pro-inflammatory condition, which makes bone marrow erythroid progenitors more resistant to erythropoietin over time. 5 In India, roughly 50% of pregnant women are anaemic, according to data from NFHS 2, 3, and 4. India has the highest rate of anaemia during pregnancy among the nations of South Asia.[6]

In our study highest number of anaemic females in reproductive age group were found to be in the age group of 20-30 years (41.5%) and the lowest were in age group of <20years (14.6%).

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Table 2, shows total of 43 females out of 130 were pregnant, and majority of them were found to be moderately anaemic 60.46% (26), followed by mild anaemia 27.90% (12), followed by severe anaemia 11.62% (5).

Table 3, shows total of 87 females and 76(87.35%0 of them were moderately anaemic, followed by severe anaemia 10(11.49%), and 1.14% (1) was found to have mild anaemia.

Suryanarayana et al. conducted a study in Kolar district and showed prevalence of anaemia to be 63% among pregnant women. In another study done by Asma nigar and Ausaf ahmad [3] maximum number of pregnant women were in the age group of 20 to 25 years (49.5%), which is comparable with study by Sharma et al.[7]

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