



**Original Article**

**PREVALENCE OF ANEMIA AMONG FEMALE  
PATIENTS PRESENTING IN OUTDOOR  
DEPARTMENT**

**Publication History:**

Received 19/5/2020  
Accepted 26 /6/2020  
Published 28 /7/2020

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**Cite this article as:**

Kainat, Ishaque S, Gull N. Prevalence of anemia among female patients presenting in outdoor department. Int. J. Med. Dent. Allied Health Sci. 2020;2(7). 236-41

**DOI:**

10.5281/zenodo.3976308

**ABSTRACT:**

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. The diagnosis of anemia in men is based on a hemoglobin of less than 130 to 140 g/L (13 to 14 g/dL); in women, it is less than 120 to 130 g/L (12 to 13 g/dL). This cross-sectional study was conducted in outdoor department of different hospitals. Female patients presenting in outdoor department were included in this study. The data of 130 female patients was collected after taking brief history and collecting their Hb values from the laboratory. The

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mean age of the patients was  $27.41 \pm 1.99$  years. The mean Hb of the patients was  $11.23 \pm 2.33$  g/dL with minimum Hb of 7 g/dL and maximum of 14 of 15 g/dL. Thirty-nine (30%) of the patients were having Hb  $< 10$  g/dL. Sixty-five (50%) were having Hb between 10-13 g/dL and twenty-six (20%) of the patients were having Hb  $> 13$  g/dL.

**Keywords: Anemia, outdoor, females**

**INTRODUCTION:**

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. When anemia comes on slowly, the symptoms are often vague and may include feeling tired, weakness, shortness of breath, and a poor ability to exercise. When the anemia comes on quickly, symptoms may include confusion, feeling like one is going to pass out, loss of consciousness, and increased thirst. Anemia must be significant before a person becomes noticeably pale. Additional symptoms may occur depending on the underlying cause.

Anemia can be caused by blood loss, decreased red blood cell production, and increased red blood cell breakdown. Causes of blood loss include trauma and gastrointestinal bleeding. Causes of decreased production include iron deficiency, vitamin B12 deficiency, thalassemia, and a number of neoplasms of



the bone marrow. Causes of increased breakdown include genetic conditions such as sickle cell anemia, infections such as malaria, and certain autoimmune diseases. Anemia can also be classified based on the size of the red blood cells and amount of hemoglobin in each cell. If the cells are small, it is called microcytic anemia; if they are large, it is called macrocytic anemia; and if they are normal sized, it is called normocytic anemia. The diagnosis of anemia in men is based on a hemoglobin of less than 130 to 140 g/L (13 to 14 g/dL); in women, it is less than 120 to 130 g/L (12 to 13 g/dL). Further testing is then required to determine the cause. Certain groups of individuals, such as pregnant women, benefit from the use of iron pills for prevention. Dietary supplementation, without determining the specific cause, is not recommended. The use of blood transfusions is typically based on a person's signs and symptoms. In those without symptoms, they are not recommended unless hemoglobin levels are less than 60 to 80 g/L (6 to 8 g/dL). These recommendations may also apply to some people with acute bleeding. Erythropoiesis-stimulating medications are only recommended in those with severe anemia.

Anemia is the most common blood disorder, affecting about a third of the global population. Iron-deficiency anemia affects nearly 1 billion people. In 2013, anemia due to iron deficiency resulted in about 183,000 deaths – down from 213,000 deaths in 1990. It is more common



in women than men, during pregnancy, and in children and the elderly. Anemia increases costs of medical care and lowers a person's productivity through a decreased ability to work [1.2.3].

**MATERIAL AND METHODS:**

This observational study was conducted in outdoor department of different hospitals. Female patients presenting in outdoor department were included in this study. The data of 130 female patients was collected after taking brief history and collecting their Hb values from the laboratory. The data was collected and analyzed using SPSS Ver. 23.0.

**RESULTS:**

The mean age of the patients was  $27.41 \pm 1.99$  years with the minimum age of 21 years and maximum age of 35 years. The mean Hb of the patients was  $11.23 \pm 2.33$  g/dL with minimum Hb of 7 g/dL and maximum of 14 of 15 g/dL. Thirty-nine (30%) of the patients were having Hb <10 g/ dL. Sixty five (50%) were having Hb between 10-13 g/dL and twenty six (20%) of the patients were having Hb >13 g/dL.

**DISCUSSION:**



There are a number of definitions of anemia; reviews provide comparison and contrast of them. A strict but broad definition is an absolute decrease in red blood cell mass, however, a broader definition is a lowered ability of the blood to carry oxygen. An operational definition is a decrease in whole-blood hemoglobin concentration of more than 2 standard deviations below the mean of an age- and sex-matched reference range.

It is difficult to directly measure RBC mass, so the hematocrit (amount of RBCs) or the hemoglobin (Hb) in the blood are often used instead to indirectly estimate the value. Hematocrit; however, is concentration dependent and is therefore not completely accurate. For example, during pregnancy a woman's RBC mass is normal but because of an increase in blood volume the hemoglobin and hematocrit are diluted and thus decreased. Another example would be bleeding where the RBC mass would decrease but the concentrations of hemoglobin and hematocrit initially remains normal until fluids shift from other areas of the body to the intravascular space.

The anemia is also classified by severity into mild (110 g/L to normal), moderate (80 g/L to 110 g/L), and severe anemia (less than 80 g/L) in adult males and adult non pregnant females. Different values are used in pregnancy and children [4,5].

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