

**Clinical and Etiological Profile of Post-Menopausal Women with Moderate to Severe Anemia Attending Urban Tertiary Care Hospital, Hyderabad, Telangana**

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**Type of Publication:** Original Research Article

**Conflicts of Interest:** Nil

**Abstract**

**Background and Objectives:** Anemia is a common concern in post menopausal women and can have significant morbidity and mortality. Because anemia is a sign and not a diagnosis, an evaluation is almost warranted to identify the underlying cause. Confirming the type of anemia is critical to direct the investigation for profiling the etiology since it is well known that the treatment goes a long way in improving the overall outcome and quality of life. The purpose of the study is to find out the clinical features with which post menopausal women having moderate to severe anemia present and to try and evaluate the major etiological factors in this study group with relevant investigations.

**Material and Methods:** The present study is conducted in Mahavir Hospital and Research Centre, Hyderabad.

The study group comprised of post menopausal women with moderate to severe anemia who attended the outpatient and inpatient Department of General Medicine and Obstetrics & Gynecology, Mahavir Hospital and Research Center, Hyderabad, Telangana over a period of one and half year. Patients with the clinical diagnosis of anemia in post menopausal group (including post hysterectomy) with hemoglobin less than or equal to 8gm/dl (moderate to severe anemia). Informed consent was taken from the patients who fulfilled the inclusion criteria. Detailed history was taken from each patient. 70 post menopausal women with normal renal function were

studied. The cases in the study group were interviewed, clinical examination was done, and laboratory tests were sent and recorded in the proforma prepared for the purpose of the study.

After collecting the data, a Microsoft Excel spreadsheet was generated. The data was then analysed using the Statistical Package for the Social Sciences (SPSS) software. Descriptive statistics like mean, standard deviation, prevalence, 95% confidence interval was calculated.

To study the associations between anemia and clinical picture, etiological picture was assessed by chi square test. Level of significance was considered as 0.05 (prevalence).

**Keywords:** Anemia, hemoglobin, post menopausal women, etiology, signs and symptoms.

**Inclusion Criteria**

1. Post menopausal women with hemoglobin less than or equal to 8gm/do ( including post hysterectomy cases).
2. Those who give informed consent.

**Exclusion criteria**

1. Acute traumatic blood loss
2. Surgical causes( recent major surgery within 3months of duration)
3. Chronic kidney disease.

**Results**

Study group comprised of 70 postmenopausal women with Hb<=8gm/dl. Subjects were analyzed into those with Hb<6.5gm/dl and those with Hb>=6.5gm/dl based on

severity. Hb less than 6.5gm/dl was seen in 18.57% and Hb greater than or equal to 6.5gm/dl was seen in 81.43% among the study group. Most (60%) of the patients fell in 60-69 age group. Oldest patient observed was 96 years old and youngest was 60 year old. Mean age of patients was 69.09 + 8.49 years. Mean hemoglobin observed was 7.43+ 0.65 gm/dl. Anemia was observed more among vegetarians (57%) than non vegetarians (43%). Clinical presentation includes some degree of breathlessness among all patients, fatigability was present in 74.29%, 38.57% of patients had parasthesias, and 20% of the patients had palpitations. Signs were pallor in all patients, 64.29% had nail changes in the form of kolionychia, clubbing, brittle nails, and vertical ridges; angular stomatitis in 20% of our patients, 12.86% had glossitis. 45.71% were having normocytic blood picture in peripheral blood smear, 38.57% of post menopausal women were having microcytic picture, 10% were having macrocytic blood picture and 5.71% were having dimorphic blood picture. Most common cause of anemia observed was iron deficiency (40%) followed by anemia of chronic disease (31.4%) and megaloblastic anemia (10%) in our group. In our study, iron deficiency anemia was observed in 92.59% of study group with microcytic blood picture where as anemia of chronic disease accounted to 7.41% of those with microcytic blood picture. Among study group with microcytic blood picture; 14.81% have serum ferritin levels <15ng/ml, 85.19% had ferritin values between 15 to 100ng/ml. Among the study group with microcytic blood picture, 56% of iron deficiency was due to nutritional cause and 36% of iron deficiency was due to chronic blood loss. Among 70 patients in study group, total 22(31.4%) were having blood loss. In our study 24.2% of study group had NSAID abuse; most of them were having osteoarthritis. More incidence of chronic blood loss in our study group

can be explained by over usage of NSAID. In our study, among those patients who underwent both upper GI endoscopy and colonoscopy 77% had lesion detected in upper gastrointestinal tract, 9% had lesion in lower gastrointestinal tract whereas 14% had lesions in both upper and lower gastrointestinal tracts. Among the study group having anemia of chronic inflammation; 22.73% had pulmonary tuberculosis, 13.64% had rheumatoid arthritis, 13.64% had osteoarthritis, 13.64% had liver disease, 13.64% had infections (recurrent urinary tract infection, lung abscess, hepatitis c), 9.09% had hypothyroidism, 9.09% had malignancy, 4.55% had psoriasis. Pancytopenia was present in 10% of our patients. This can be attributed to increased prevalence of Vitamin B12 deficiency in our group. Among study group with macrocytic anemia, 57.14% had pancytopenia.

Malignancies as a cause of anemia that are observed in our study group are gastrointestinal (50%) followed by carcinoma of breast (25%) and carcinoma of ovary (25%). Normocytic blood picture was the most common blood picture observed in malignancies. 17.14% of the study group were hypothyroid.

### **Conclusion**

Anemia is still prevalent in developing countries like India causing morbidity and having impact on progression of nation. Even after reproductive age is crossed, anemia is still prevalent among women causing morbidity and mortality. Here in our study, we have evaluated 70 post menopausal women with Hb<=8gm/dl and found out iron deficiency as the major etiological factor followed by anemia of chronic disease and megaloblastic anemia. Uncorrected hypothyroidism was also observed in few patients emphasizing the need of thyroid evaluation in a case of anemia. A worrying trend of increase in chronic disorders has been observed which need to be addressed in the first visit and promptly treated. Failure to evaluate

anemia in elderly could lead to delayed diagnosis of potentially treatable conditions. Non specific symptoms like fatigue and weakness should not be ignored in the geriatric population as they could be important pointers towards presence of anemia in these patients. An effort should always be made to reach etiological diagnosis before instituting specific therapy.

### **Biography**

K.pragnya has completed MBBS and General medicine from India . Currently doing private practice in own hospital located in Andhra Pradesh.

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