CORRESPONDENCE

Geriatric Anemia: An Indian Perspective

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Dear Sir,

Reference to the article "Characteristics of anemia in the Elderly: A hospital based study in South India" recently published in your esteemed journal (2011 volume 27(1), pages 26–32).

The authors have systematically approached anemia in the elderly Indian population, an area often neglected. The general symptoms of fatigue in these patients being often attributed to advancing age [1].

A very similar study was conducted at our hospital (St. John's Medical College Hospital, Bangalore) and the findings published [2].

We would like to draw the comparisons between the two studies (refer Table 1).

In our study all anemic patients with age above 60 years (n = 236) were included in the study over a 1 year period (2006–2007). All cases with features of any haematological malignancy were excluded unlike the referenced study. The reference range followed for definition of anemia was as advocated by the WHO (hemoglobin of <13 g% in males and <12 g% in females was considered as anemia). We found the prevalence of anemia to be 37.88% in the elderly patients. More than half the patients (54.23%) had mild anemia with haemoglobin ranging between 8 to 10 g%. A significant point we noted was, as compared to the 60–65 years age group (prevalence 32.01%), the prevalence doubled to 63.88% in the >75 year age group [2].

Similar to the quoted study, we also found the most common type of anemia to be normocytic, followed by microcytic, macrocytic and dimorphic blood pictures.

In addition to peripheral smear evaluation, a bone marrow examination was performed in 24.15% cases. Reactive erythroid hyperplasia was a common finding seen in 45.61% cases. Normoblastic maturation was noted in 59.64% cases, micronormoblastic maturation seen in 22.8% and megaloblastic maturation was noted in 12.28% cases. Features of Myelodysplasia was noted in 3 cases. Iron stores were assessed in all the marrow aspirates. Increased iron stores was noted in 56.14% (indicative of infection), while 0.07% cases had normal iron stores.

Etiologically, nutritional anemias were the most common and seen in 77 cases (32.62%). Chronic renal failure was another common cause seen in 46 cases. These findings parallel the quoted study [2].

The authors in the said study have very effectively defined the iron deficient population into those with absolute iron deficiency (Ferritin <20 ng/ml) and mild to moderate iron deficiency (Ferritin 20–100 ng/ml). They have also highlighted the importance of investigating these patients with stool for occult blood and subjecting them to gastroscopy to rule out chronic blood loss and gastro intestinal pathologies which was a frequent finding in their study (22 upper GI and 5 colonic pathologic cases) [1].

In our study the bone marrow iron stores were used as an indicator of iron stores. Depleted iron stores were noted in 29.82% cases. Other parallel studies by Milman and Schultz-Larsen [3] reported lower prevalence of iron deficient patients (2.4% with depleted iron and 3.5% with small/minimal iron stores).

As discussed the iron deficient status and anemia per se are seen more commonly in our country as seen in both the studies and other studies done in India. Prevalence of anemia in rural populations in Tamil Nadu is as high as 52% [4]. This could be explained due to lack of awareness in these individuals.

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Table 1 Comparison of findings in two studies on geriatric anemia

Parameters compared	Bhasin and Rao	Our study
Aetiology	1. Nutritional deficiency (30%)	1. Nutritional deficiency (32.6%)
	2. Renal failure (22%)	2. Renal failure (19.49%)
	3. Anemia due to chronic blood loss—31% (17 with microcytic and 14 with normocytic anemia)	3. Miscellaneous causes like Infections, IHD etc. (17.32%)
	4. Underlying malignancy (14%)	Malignancies excluded from study
Blood picture/red cell indices		
Microcytic	30%	25.84%
Normocytic (most common)	62%	66.01%
Macrocytic	6%	07.22% and Dimorphic 00.84%
Iron stores	Serum ferritin assay:	Bone marrow iron assessed:
	36% with <20 ng/ml and 53% with ferritin between 20 and 100 ng/ml	29.8% Cases showing depleted iron

In contrast, studies done in the United States (3rd national health and nutrition examination survey (NHANESIII)) to assess the prevalence of anemia in the elderly (aged >65 years), showed the prevalence to be approximately 10% [5], the rate being much lower to that in developing countries like India. In addition the NHANESIII study was done on non institutionalised individuals, unlike our studies (hospital based) [2]. Nutritional deficiencies contributed to 34%, anemia of chronic diseases (ACD) 20% and chronic renal failure (CRF) 8, 4% had both ACD and CRF. In the remaining 34% cases the cause was unexplained [5]. In our study 33 cases (14%) had unexplained anemia [2].

In conclusion, anemia in the elderly is a very prevalent condition in our country. Though nutritional anemias are still common in India, the finding of a normocytic anemia is the most frequently encountered type. As anemia may be only the presenting feature in these patients harbouring more serious pathologies, they have to be approached in a very systematic manner, in order to improve the quality of life and lifespan of the geriatric population.

References

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