

LETTER TO THE EDITOR

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Final diagnosis of patients referred to hematologist due to anemia

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The Editor,

Anemia is one of the most common disorders, affecting about 30% of the population in 2010 [1]. It is diagnosed based upon the World Health Organization (WHO) criteria of hemoglobin < 13 g/dL in men or < 12 g/dL in women and iron-deficiency anemia (IDA) is the most frequent cause [1-3]. Referral to the hematologist is not indicated in the majority of patients unless the etiology is unclear or there is persistent disease with alarming symptoms or intravenous (iv) iron is under consideration for IDA. However, there is a huge burden of anemic patient admissions to the hematology clinics in our country and to the best of our knowledge there is not any report from Turkey focusing on the outcomes of these anemia referrals. In this study, we aimed to document the final diagnosis of the patients referred to a hematologist due to anemia at a research center in Turkey.

All of the adult patients older than 16 years old consecutively admitted to the outpatient clinics of our center between October 2016 and January 2018 were retrospectively examined and the ones referred for anemia were further analyzed. Patients with accompanying thrombocyte or leukocyte problems were excluded and only the ones with isolated anemia were included. This study was approved by the Research Ethics Committee of our university (project number KA18/372) and all the data were retrieved from the electronic database used for patient follow-up in our hospital (Nucleus version 9.3.39; Monad Software Company, Ankara, Turkey).

A total of 363 referrals due to anemia were included and results were summarized in the table. Most of the patients were female with a mean age of 46 years (range 17-90).

Considering final diagnosis after admission to our center, the most frequent etiology of anemia was iron deficiency with only 28% (n=79) requiring iv iron. The second most common etiology was hematologic malignancy constituting 7% of the total. Other etiologies were as summarized in the table. For 10 patients it was not possible to establish a diagnosis; because these patients were lost to follow-up after initial assessment.

Table. Clinical characteristics of the patients

n = 363 patients	
Age, mean (range)	46(17-90)
Gender F:M, n(%)	304 (84): 59(16)
Hemoglobin, mean ± SD	9.5±1.6
Final diagnosis, n(%)	
Iron deficiency anemia	286(79)
Vitamin B12 deficiency	6
Thalassemia trait	8
Anemia of chronic disease	16(4)
Hematologic malignancies	24(7)
Other hematologic disorders	13
Unclassified anemia	10
SD: Standard deviation	

In conclusion, we found that the most common final diagnosis for the referred patients were IDA. However, only about one third of these required iv iron therapy, while the rest were treated with oral iron. Thereby, a simple problem that can easily be solved at the primary care was managed at tertiary care, which shortly means usage of our health sources incorrectly. It seems that the first contact physicians have some trouble with distinguishing and accurate referring of anemia patients and there is need for a targeted educational intervention to improve awareness for IDA.

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Competing interests

The authors report no conflict of interest in relation to this work.

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Ethics committee approval

It was approved by the Research Ethics Committee of the Baskent University Institutional Review Board (project number KA18/372)

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