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Clinical Profile of Elderly Patients with Severe Anaemia: A Cross-Sectional Observational Study.

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ABSTRACT

Anaemia in the elderly is an emerging global health concern, often underdiagnosed and associated with adverse outcomes. Understanding the clinical profile of elderly patients with severe anaemia can enhance early recognition and management. To study the clinical profile of elderly patients with severe anaemia admitted to a tertiary care hospital. This cross-sectional observational study included 50 patients aged ≥60 years with haemoglobin <7 gm/dL. Detailed history, physical examination, laboratory, and imaging findings were analysed. Data were presented as frequencies and percentages. The cohort comprised 54% males and 46% females. The most common symptoms were fatigue (96%), anorexia (94%), and breathlessness (92%). Pallor was observed in all patients (100%), with oedema (64%), lymphadenopathy (14%), and icterus (12%) also frequently encountered. Severe anaemia in elderly patients presents with a wide range of symptoms and signs, with fatigue and pallor being the most consistent indicators. Comprehensive clinical evaluation remains critical for timely diagnosis and improved patient outcomes.

Keywords: Severe anaemia, elderly, clinical profile

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INTRODUCTION

Anaemia in the elderly is a significant public health concern with considerable implications for morbidity and mortality [1]. Defined as a haemoglobin level below 7.0 g/dL for severe anaemia, it can result from numerous factors including nutritional deficiencies, chronic diseases, and unexplained aetiologies [2, 3]. The elderly population is expanding rapidly worldwide, with projections estimating over 1.6 billion individuals aged over 65 by 2050. Within this group, anaemia frequently goes underdiagnosed and undertreated despite its association with increased risk of falls, cognitive decline, cardiovascular disease, and functional impairment [3-5]. Understanding the clinical profile of elderly patients presenting with severe anaemia is vital for early detection and intervention. Clinical manifestations in this group can be subtle or masked by comorbid conditions. Symptoms often include fatigue, breathlessness, anorexia, and signs such as pallor, oedema, and lymphadenopathy [6, 7]. The goal of this study is to provide a comprehensive analysis of the clinical profile of elderly patients admitted with severe anaemia in a tertiary care hospital. Such insights can inform targeted screening and management strategies to improve outcomes in this vulnerable population.

METHODOLOGY

This was a cross-sectional observational study conducted at a tertiary care hospital from December 2014 to May 2016. A total of 50 patients aged 60 years and above with haemoglobin < 7 gm/dL were enrolled. The study was approved by the Institutional Ethics Committee, and written informed consent was obtained from all participants.

Detailed demographic data, symptomatology, and physical examination findings were documented using a pre-designed proforma. General and systemic examination included assessment for pallor, tachycardia, oedema, icterus, and lymphadenopathy. Clinical symptoms such as fatigue, anorexia, breathlessness, and neurological complaints were recorded.

Laboratory investigations included complete haemogram, serum iron, TIBC, reticulocyte count, and peripheral smear. Imaging studies such as chest X-ray and abdominal ultrasonography were performed to identify associated pathologies. Bone marrow aspiration, OGD scopy, and colonoscopy were conducted where indicated.

Data were analysed using SPSS version 19.0. Qualitative variables were expressed as frequency and percentage. The clinical profile was described in terms of prevalent symptoms and signs observed in the study cohort.

RESULTS

Table 1: Gender-Wise Distribution of Patients

Gender	Number of Patients (n=50)	Percentage (%)
Male	27	54%
Female	23	46%
Total	**50**	**100%**

Table 2: Common Presenting Symptoms

Symptom	Number of Patients	Percentage (%)
Easy Fatigability	48	96%
Anorexia	47	94%
Breathlessness	46	92%
Oedema	31	62%
Fever	24	48%

Table 3: Common Clinical Signs

Sign	Number of Patients	Percentage (%)
Pallor	50	100%
Oedema	32	64%
Lymphadenopathy	7	14%
Koilonychia	7	14%
Icterus	6	12%

DISCUSSION

This study analysed the clinical profile of 50 elderly patients with severe anaemia admitted to a tertiary care hospital. The gender distribution showed a slight male preponderance (54%), aligning with similar studies in elderly populations. The mean age was approximately 68.7 years, reflecting a typical geriatric cohort [6].

Fatigue was the most frequently reported symptom (96%), consistent with the literature indicating that anaemia reduces exercise tolerance and contributes to generalized weakness. Anorexia and breathlessness were also prevalent, reported in 94% and 92% of cases respectively. These findings are in line with prior studies that identified poor nutritional intake and reduced oxygen-carrying capacity as key contributors to these symptoms.

Oedema was present in 62% of patients, potentially linked to coexisting heart failure or hypoalbuminemia often seen in chronic anaemia. Fever was observed in nearly half the patients (48%), suggesting an association with infectious or inflammatory processes contributing to anaemia.

Pallor was universally present (100%), underscoring its value as a key clinical indicator. Oedema and lymphadenopathy were found in 64% and 14% respectively, pointing to possible comorbid cardiac or malignant conditions. The presence of koilonychia and icterus further highlights the heterogeneity of underlying causes.

These findings echo the results of other studies that emphasise the insidious onset and multifactorial nature of severe anaemia in the elderly [7-11].

Overall, this study demonstrates that severe anaemia in the elderly is associated with a wide spectrum of symptoms and signs, many of which overlap with age-related comorbidities. A high index of suspicion, coupled with comprehensive clinical assessment, is vital for timely diagnosis and management. Clinicians should be vigilant in evaluating elderly patients for anaemia, especially those presenting with fatigue, breathlessness, and pallor.

CONCLUSION

Severe anaemia in elderly patients presents with a wide range of symptoms and signs, with fatigue and pallor being the most consistent indicators. Comprehensive clinical evaluation remains critical for timely diagnosis and improved patient outcomes.

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