PREVALANCE OF ANEMIA IN HIV/AIDS PATIENTS

General Medicine

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INTRODUCTION

The impact of HIV infection extends beyond immune system dysfunction, affecting other hematopoietic cell lineages as well. Disturbances in the hematopoietic system are common in HIV-infected patients, often marked by a reduction in blood cell counts, termed cytopenia. Among these, anemia, leucopenia, and thrombocytopenia are notable clinical complications of HIV infection that frequently emerge early and persist irrespective of disease symptoms.[1] Altered hematopoiesis is common in HIV infection. This affects all three major cell lines i.e., red blood cells, white blood cells and platelets. This ultimately results in HIV-infected patients suffering from anemia,leucopenia, thrombocytopenia, or any combination of these three.[2]

Anaemia is the commonest form of HIV-associated cytopenia and has frequently been associated with several factors that may either cause reduced bone marrow activity,chronic blood loss, or peripheral red blood cell destruction.[3] Reduced bone marrow activity frequently follows marrow infiltrative diseases like opportunistic infections and malignances,[4] inadequate marrow stimulation (for example, from reduced erythropoietin production),[5] bone marrow suppression (from medications like zidovudine[AZT] and cotrimoxazole [CTX] or from the suppressive effects of soluble proteins from HIV and cytokines),[6][7] nutritional deficiencies with reduced raw material supply (iron, folate, and vitamin B12)among others.[8][9]

Objectives

To study the correlation between anemia among HIV patients with or without ART.

MATERIALS AND METHODS

Study Design : Hospital based prospective study

Source Of Data : This study which was carried out in the outpatient department and in-patient department of General Medicine, Basaveshwara Teaching and General Hospital, Kalaburagi attached to Mahadevappa Rampure Medical College, Kalaburagi, Karnataka.

Inclusion Criteria
1. Patients with HIV positive status.
2. Age >18years and <60years.

Exclusion Criteria
1. Subjects with known hematological disorders like sickle cell anemia, hemophilia, thalessemia were excluded.
2. Subjects with history of recent blood transfusion and pregnant women were excluded from the study.

RESULTS
Observations
Age Wise Distribution of HIV Positive Patients

Age in years	Number of patients	Percentage
20—30	15	21.4
31—40	11	15.7
41—50	26	37.2
51—60	18	25.7
Total	70	100.0
Mean ± SD	42.27 ± 11.51	----

Study observed that; Out of 70 patients.Majority of patients 26 (37.2%) were belongs to the age group of 41—50 years. Followed by 18 (25.7%) of patients were belongs to the age group of 51—60 years, 15 (21.4%) of patients were seen in the age range of 20—30 years and

11(15.7%) of patients were seen in the age range of 31—40 years. The mean age of patients was 42.27 years.

Gender Wise Distribution of HIV Positive Patients

Gender	Number of patients	Percentage
Males	33	47.1
Females	37	52.9
Total	70	100.0

In the study;Out of 70 patient,female patients were seen 37 (52.9%) and male patients were 33 (47.1%). Male to female sex ratio was 1:1.12

### Regimen Wise Distribution of HIV Patients

Regimen	Number of patients	Percentage
TLD	51	72.9
Without TLD	17	24.3
T.ZIDOVUDINE300MG+T.LA MI300MG, T.LOPINA100MG+T.RITO25	1	1.4
T.EMTRICITABINE+T.TENO+ T.EFAVIRENZ	1	1.4
Total	70	100.0

Distribution of Cytopenia of Anaemia Among HIV-AIDS Patients

Hb g/dl levels	Categories	Number of patients	Percentage
≥ 12 (F), 13 (M)	Normal	14	20.0
10-12 (F) or 10-13(M)	Mild	27	38.6
8—10	Moderate	22	31.4
<8	Severe	7	10.0
Total	--	70	100.0
Mean ± SD	10.61 ± 2.47		

The prevalence of cytopenia of anaemia in HIVAIDS patients was 80%

Bar Diagram Represents Correlation Between Anemia And HIV Patients With Or Without Art
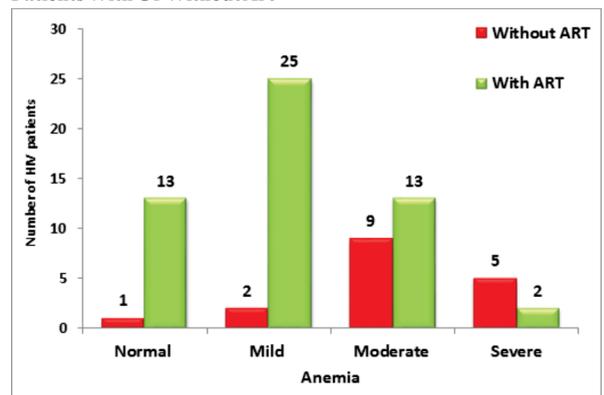
RESULTS

Out of 70 patients,the prevalence of cytopenia of anemia in HIV/AIDS patients was 80%.20.0% of patients have normal hemoglobin levels,38.6% exhibit mild anemia, 31.4% experience moderate anemia,10.0% are classified with severe anemia.Among the 27 patients with mild anemia, 2 (7.4%) are not on ART and 25 (92.6%) are on ART.Of the 22 patients with moderate anemia, 9 (40.9%) are not on ART, and 13 (59.1%) are on ART.Severe anemia is most prevalent among patients not on ART. Out of 7 patients with severe anemia, 5

(71.4%) are not on ART, and only 2 (28.6%) are on ART.

CONCLUSION

Finally the present study proves that anemia among cytopenias are more prevalant in HIV patients.Our study suggests a strong correlation between lack of ART and severe anemia.

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