HIV-Associated Lymphoproliferative Disorders: Single-Center Experience

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Introduction

Human immunodeficiency virus (HIV) infection impairs cellular immunity, thereby predisposing individuals to an increased risk of lymphoid malignancies. Survival rates of AIDS-related lymphoma (ARL) subjects improved in recent years, especially due to innovations in current lymphoma treatments and the addition of combination antiretroviral therapy (cART).

Aim

This study aims to present the demographic and clinical characteristics, prognosis, and survival data of patients with ARL as a single-center experience.

Methods

This retrospective study included 16 patients with ARL treated at our center between August 2010 and March 2022. Demographic data, clinical information, treatment details, and survival analysis of the patients were retrospectively reviewed from the relevant clinical archives. Lymphoma subtypes were confirmed by biopsy and staged using the modified Ann Arbor staging system. All patients received cART concomitantly with lymphoma treatment.

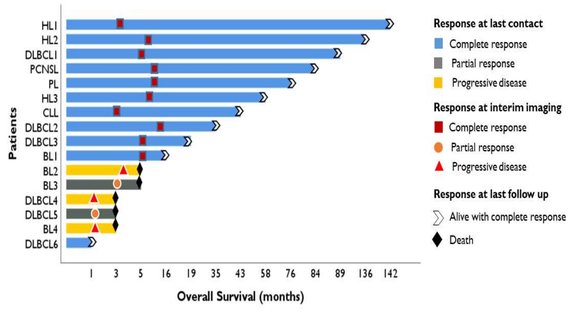
Table. Patients and disease characteristics

	Patients diagnosed with ARL (n=16)
Age (years)	
Median (min-max)	46.5 (24-71)
Gender (male) n, (%)	15 (93.8)
Diagnosis n, (%)	
DLBCL	6 (37.5)
BL	4 (25)
HL	3 (18.8)
PL	1 (6.3)
PCNSL	1 (6.3)
CLL	1 (6.3)
Advanced stage n, (%)	15 (93.8)
Extranodal invasion n, (%)	11 (68.8)
CNS invasion n, (%)	3 (18.8)
BM invasion n, (%)	7 (43.8)
'B' symptoms n, (%)	12 (75)
HBV coinfection n, (%)	-
HCV coinfection n, (%)	1 (6.3)
CD4+ cell count, median (IQR)	210 (38-270)
HIV RNA count at diagnosis (copies/mL), median (IQR)	89611 (40-1870003)
Number of patients diagnosed with lymphoma and AIDS, n (%)	5 (32)
Time from HIV infection to lymphoma diagnosis (months), median (IQR, min–max)*	23.8 (1-185)

Results

Fifteen out of 16 patients were males with a median age of 46.5 years (range, 24-71 years). The diagnoses were as follows: Diffuse large B-cell lymphoma (DLBCL) in six, Burkitt lymphoma (BL) in four, Hodgkin lymphoma (HL) in three, plasmablastic lymphoma (PL) in one, primary central nervous system lymphoma (PCNSL) in one, and chronic lymphocytic leukemia (CLL) in one out of 16 patients. Fifteen patients presented with an advanced stage at diagnosis. Diagnosis of AIDS preceded the onset of lymphoma in 11 patients. The time from HIV infection to diagnosis of lymphoma was 23.8 months (range, 1-185 months). All patients received cART during lymphoma treatment. The treatment response was evaluated in all patients who completed the initial treatment. Eleven patients (68.8%) achieved a CR, two (12.5%) partial responses; however, three (18.8%) experienced a progressive disease. Eleven patients, who achieved a CR, had an undetectable viral load at the end of lymphoma treatment. (18.8%). Mortality was highest in patients with CD4+ ≤200 cells/mL and persistent viremia.

Figure. Survival Outcomes in HIV-Associated Lymphomas



Conclusion

We conclude that the morbidity and mortality associated with HIV-related lymphomas decreased substantially with the use of cART. Patients with ARL have a near-normal response rate and survival expectancy as long as they respond to cART.

Keywords

Acquired Immune Deficiency Syndrome, AIDS related lymphomas, lymphoproliferative diseases, human immunodeficiency virus, combination antiretroviral therapy, immunodeficiency.

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SOHO2025