Five-Year Experience with Burkitt Lymphoma: Trends and Outcomes from a Single-Center Cohort in Armenia

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Introduction

Burkitt lymphoma (BL) is a rare, aggressive B-cell non-Hodgkin lymphoma characterized by MYC translocation and rapid proliferation. While curable with prompt intensive therapy, adult BL remains challenging in low-resource settings. We present a retrospective analysis of BL cases in Armenia, highlighting diagnostic delays, treatment barriers, and outcomes, with emphasis on regional disparities and HIV-associated cases.

Aim

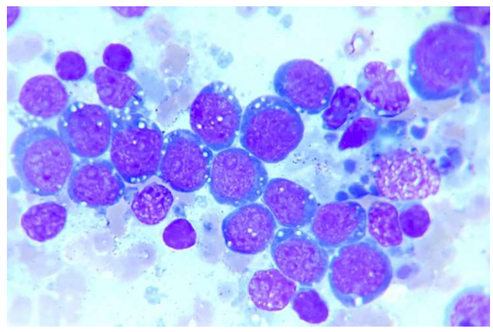
To describe the clinical characteristics, diagnostic features, treatment strategies, and outcomes of patients diagnosed with Burkitt lymphoma at a single center in Armenia between January 2020 and December 2024.

Methods

This retrospective single-center study included 10 adult patients (≥18 years)diagnosed with BL at Yeolyan Hematology and Oncology Center from 2020–2024. Diagnosis was based on histopathology, immunophenotyping, and cytogenetics when available. Clinical data, treatment responses, toxicities, and outcomes were extracted from medical records. Early referral pathways were not standardized during the study period.

Results

Ten patients (70% female) were diagnosed with BL between 2020–2024 (median age: 44.9 years; range: 24–68). Most resided outside Yerevan. Staging at diagnosis included IE (2), II (4), and IV (4). Risk categories were low (3), intermediate (4), and high (3). Treatment regimens included DA-R-EPOCH (5) and GMALL (5), selected based on performance status and CNS involvement. CNS involvement was seen in 1 patient; 2 had HIV. Three female patients underwent hysterectomy, with BL identified histologically in 2. Frequent grade 3–4 toxicities included febrile neutropenia and mucositis; one case of therapy-related leukemia occurred. By December 2024, 4 out of 10 patients had died, of which 2 patients died from disease progression and 2 patients died from post-chemotherapy complications. 6 patients remain in remission.



Picture 1. Burkitt Lymphoma, sourced from: Pathology Outlines https://www.pathologyoutlines.com/topic/lymphomaburkitt.html

Summary

Burkitt lymphoma remains rare but highly aggressive in Armenian adults. Delays in diagnosis, limited rituximab access, and treatment toxicity contribute to poor outcomes. Early recognition, standardized referral pathways, and prompt therapy are critical. Strengthening diagnostic infrastructure, expanding supportive care, and ensuring drug availability may improve survival. Further studies are needed to optimize BL management in low-resource settings like Armenia.

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