

The Clinicopathological spectrum of Plasmablastic Lymphoma at a tertiary laboratory in Ga-Rankuwa: A three-year single centre experience

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Background and Objectives: Plasmablastic lymphoma (PBL) is a rare, aggressive subtype of high-grade B-cell non-Hodgkin lymphoma (NHL) that is significantly linked to Human immunodeficiency virus (HIV) and Epstein-Barr virus (EBV) infections. The PBL is often misdiagnosed due to its resemblance of other aggressive NHLs. Although PBL is a rare lymphoma globally, South Africa bears a disproportionately higher burden due to the high prevalence of HIV infection.

This study aimed to determine clinicopathological spectrum and distribution of PBL at tertiary laboratory in Ga-Rankuwa.

Methods: This study followed a retrospective, cross-sectional approach to analyse cases diagnosed with lymphoma at a tertiary laboratory in Northern Pretoria from 01 January 2022 to 31 December 2024. The demographic and clinicopathological data were retrieved from the National Health Laboratory Service (NHLS) central data warehouse (CDW) and captured into Microsoft excel 365 for further statistical analysis using STATA v18 software.

Results: A total of twenty-five cases were analysed in this study with mean age of 37.92 years. There was slight male predominance, with a male to female ratio of 1.3:1. The most common clinical manifestation was mass lesions (60%) followed by lymphadenopathy (16%). Extra-nodal sites (84%), particularly rectum (24%) were the most affected sites as compared to nodal (16%). HIV accounted for 48%, while 52% were not indicated. EBV status showed 32% positive, 32% negative and 28% were not documented unknown

Conclusion: This study reported higher prevalence of PBL in males, with the most common clinical manifestations being mass lesions. The rectum was found to be the most affected site. The viral interactions of HIV and EBV contributed to PBL oncogenesis. The frequent occurrence of mass lesions suggests a late diagnosis, emphasizing the importance of early detection and better patient treatment.