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Clinico-pathological features and PD-1/PD-L1 Expression in Primary Mediastinal Large B Cell Lymphoma

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Primary Mediastinal Large B Cell Lymphoma (PMBCL) is a distinct subtype of Diffuse Large B Cell Lymphoma (DLBCL) that has been historically reported to have a worse prognosis than DLBCL. Occasional studies have reported PD-L1 expression in PMBCL, which can emerge as an important target for immune-check point therapy. This study aimed to evaluate clinico-pathological features and characterize the expression of PD-1 and PD-L1 in a single cohort of 15 patients with PMBCL.

A total of 15 cases of PMBCL were retrieved from records of the department of Pathology; eleven of these had tissue available for additional immunohistochemistry, specifically, PD-L1 (clone SP142) and PD-1 (clone NAT105). A cut-off of $\geq 30\%$ was used for PD-1 and PDL-1 expression in tumor cells, and $\geq 20\%$ for tumor-infiltrating lymphocytes (TILs) and tumor-associated macrophages (TAMs).

The median age was 42 years (23-83 years), and 9 of 15 (60%) patients were females. Of the 8 patients with clinical data, three (38%) received aggressive R-EPOCH therapy and responded. Tumor cells showed positive PD-L1 expression in only 1 case (9%), and TAMs showed positive PDL-1 expression in seven cases (64%). None of the cases analyzed showed positive PD-1 expression in TCs, while four cases (36%) showed positive PD-1 expression in TILs.