SKIN CANCER (OTHER THAN MELANOMA)

PRIMARY CUTANEOUS LARGE B CELL LYMPHOMA, LEG TYPE FREQUENTLY SHOWS COEXPRESSION OF MYC AND BCL-2: PROGNOSTIC IMPACT AND GENETIC CHARACTERIZATION.

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Introduction: Primary cutaneous diffuse large B cell lymphomas (pcDLBCL) are rare lymphoproliferative disorders with peculiar clinical and pathological features. 2018 WHO classification of skin tumors, only recognize pcDLBCL-leg-type (LT) as a specific entity. Otherwise, the term “pcDLBCL-Not Otherwise Specified (NOS)” is restricted to those cases that do not meet the diagnostic criteria for nether pcDLBCL-LT nor primary cutaneous Follicle Center Lymphoma (pcFCL). Actually, classification and prognostic stratification of pcDLBCL-LT and pcDLBCL-NOS have been matter of debate. pcDLBCL-LT generally displays and abysmal prognosis, whereas pcDLBCL-NOS have an better outcome, similarly to pcFCL.

Objective: To test the prognostic significance of “double-expressor” immunophenotype and double or triple hit molecular status in a cohort of patients diagnosed with pcDLBCL-LT, compared to a series of cases with clinical-pathological features consistent with pcDLBCL-NOS.

Materials and Methods: We retrospectively analyzed a multicentric cohort of 64 subsequent

patients diagnosed with pcDLBCL-LT or with clinical-pathological coherent with the category of pcDLBCL-NOS. Therefore, we characterized them at the histopathological and molecular level, focusing on their expression and/or rearrangements of Bcl2, Bcl6 and cMyc proteins and genes. Molecular alterations were analyzed by FISH for MYC, BCL2 and BCL6 translocations.

Results: Bcl2 and cMyc “double-expressor” phenotype was found in the majority of pcDLBCL-LT cases (72%), comparing with pcDLBCL-NOS cases. Moreover, none of the two groups displayed a statistically significant double or triple-hit status.

Conclusions: pcDLBCL-NOS and generally, non-double expressors/non-double hit cases, showed better overall survivals. On the other hand, pcDLBCL-LT, as “double expressor“-lymphomas, displayed an inferior prognosis. PcDLBCL-NOS were histopathologically akin to pcDLBCL-LT but lack the “double expressor” phenotype. Therefore, it is important to recognize such cases as a specific subset to avoid misdiagnosis and/or overtreatment.