

frustrate global development efforts unless urgent action is taken.

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SP 20

### Lymphoblastic lymphoma/leukemia: a single center experience



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**Introduction:** Lymphoblastic lymphoma (LBL) is a rare neoplasm of lymphoblasts or precursor T- and B-cell with predominantly involves lymph nodes, mediastinum or extranodal tissues with minimal persistence in bone marrow. LBL amount 2% of all non-Hodgkin lymphomas. T-phenotype is the most common one and reaches above 80% of LBL. LBL and acute lymphoblastic leukemia (ALL) have the same biological entity according WHO Classification of Tumors of Haematopoietic and Lymphoid Tissues 2017. Distinguishing criterion between two diseases is the number of bone marrow blasts 25%. ALL-regimen provide better overall (OS) and disease-free survival (DFS) in contrast with CHOP-like schemes.

**Patients and methods.** A retrospective review of LBL patients from N.N. Blokhin National Medical Research Center of Oncology (Russia, Moscow) during period between 2009 and 2020 was done. Patients were treated according ALL-2009 protocol (Russian ALL-Study Group, ClinicalTrials.gov NCT01193933). Kaplan–Meier curves and log-rank test were used to evaluate the OS and DFS. This study includes 20pts with primary ( $n=15$ ) and relapse LBL ( $n=5$ ). T-cell LBL pts were 18, and 2 were of B-cell lineage. Most patients were males 85% (17 of 20). Stage II and IV both at 45%, stage III 10%. All T-LBL patients showed a mediastinal tumor, B-LBL pts had involved peripheral lymph nodes and soft tissues. The rate of LBL among all primary lymphoid precursor neoplasms (LBL and ALL) was 17.6%. Median follow up was 28 months (0.5–170.5 mo).

**Results:** All 5 relapse patients were pre-treated out of our center: after CHOP-like treatment with relapse in initial zones and all died from disease ( $n=3$ ), after HyperCVAD, later followed alloHSCT ( $n=1$ , alive) and 1 pts after ALL-BFM-2002 with mediastinum and CNS relapse. CR rate of primary LBL ( $n=15$ ) was 93%, 1 pts was refractory and later died. Radiotherapy has been carried out in 40% (6 of 15) patients with residual tumor mass after chemotherapy consolidation. 1 patient was being undergoing autoSCT. The 10-year OS of patients with LBL, T-ALL and B-ALL was 73.8%, 48.7% and 54.5% respectively ( $p=0.3$ ). The 10-year DFS in the same groups was 75%, 56.3% and 64.5% respectively ( $p=0.2$ ). Although the results are not statistically significant, we see a trend towards better survival outcomes in patients with LBL. AlloSCT was performed in 2 patients LBL in CR2, one of them alive, the other died of complications.

**Conclusion:** The results of treatment of LBL pts in N.N. Blokhin National Medical Research Center of Oncology are comparable to most of the similar reported studies. The survival results of LBL patients with ALL-regimen therapy seem to be better compared with patients ALL. CHOP-like chemother-

apy is a very poor prognostic factor for LBL patients. The role of autoSCT has not been developed. In our center we have satisfied outcomes of LBL with minimal rate of high dose consolidation with autoSCT. Radiotherapy at postconsolidation phase in patients with residual tumor mass reduces the risk of relapse.

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### Relapsed and refractory classical Hodgkin lymphoma immunotherapy



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**Background:** Introduction of PD-1 inhibitor nivolumab (Nivo) into a clinical practice revolutionized the treatment of relapsed and refractory classical Hodgkin lymphoma (r/r cHL). Yet there is a set of unresolved clinical questions including the assessment of response, the prognostic factors influencing the survival of patients during immunotherapy, and optimal treatment strategy in patients resistant to nivolumab, as well as the possibility of discontinuation of therapy in case of persistent complete remission. This report presents the results of analysis of nivolumab treatment outcomes in Pavlov University.

**Methods:** This retrospective study included r/r cHL patients treated with standard-dose nivolumab (3 mg/kg q2w). Therapy was continued until the disease progression, signs of intolerance or could be stopped at the discretion of treating physicians in selected patients with prolonged complete remission. In patients with r/r disease after nivolumab monotherapy, 48 received nivo and bendamustine (Benda) in a 28-day cycle. Benda (90 mg/m<sup>2</sup>) was infused on day 1,2 and Nivo – on day 1 of the cycle. The response was assessed by PET-CT scan every 3 months according to LYRIC criteria.

**Results:** The analysis included 116 patients treated with nivolumab monotherapy (56 m/60 f) with a median age of 32 years (range 14–63). With a median follow-up of 41 (6–54) months after treatment initiation, 108 (93%) patients were alive, the median OS was not reached. Median PFS was 19 mo (13.7–24.4) with a 3-year PFS of 27%. The best overall response was CR in 33%, PR in 34%, SD in 5%, PD in 9%, an indeterminate response (IR) in 20% of pts. Patients with early CR at 3mo after treatment initiation had significantly better prognosis (median PFS 35 mo vs. 17 mo,  $p=0.008$ ). Other clinical factors that predicted prognosis were B-symptoms (median PFS 15 mo vs. 26 mo,  $p=0.017$ ), extranodal disease at the moment of the treatment initiation (median PFS 14 mo vs. NR,  $p=0.000$ ), >4 prior lines of therapy (median PFS 18mo vs. 27 mo,  $p=0.05$ ). In a group of patients ( $n=23$ ) who discontinued nivolumab in complete response (CR), the possibility of durable remission achievement was demonstrated (2-year PFS was 55.1%). The nivolumab retreatment has demonstrated the efficacy with high overall response rate (ORR) and CR (67 and 33.3% respectively). In the group of patients receiving nivo-benda combination after nivolumab monotherapy failure, the