Abstract Submission

20. Aggressive Non-Hodgkin lymphoma - Clinical

EHA-5374

RITUXIMAB IMPROVES THE OUTCOME OF HIV-ASSOCIATED CD20+ B-CELL LYMPHOMAS: A MULTICENTER RETROSPECTIVE STUDY

Marina O. Popova[*1], Elena Zinina[2], Natalia Popova[2], Yulia Zhurba[2], Tatyana Shneyder[3], Igor Karaygin[3], Ilya Zyuzgin[4], Olga Ryabykina[5], Olga Ruzhinskaya[5], Olga Uspenskaya[5], Nadezhda Medvedeva[6], Anna Klimovich[6], Vsevolod Potapenko[6], Alexander Myasnikov[7], Svetlana Moshnina[7], Andrey Evseev[7], Elena Karyagina[8], Alexander Levanov[9], Evgenia Borzenkova[1], Natalia Mikhaylova[1], Ludmila Zubarovskaya[1], Boris Afanasyev[1]

[1]Raisa Gorbacheva Memorial Institute of Children Oncology, Hematology and Transplantation, FIRST PAVLOV STATE MEDICAL UNIVERSITY OF SAINT-PETERSBURG, Saint-Petersburg, [2]Haematology department, Surgut District Clinical Hospital, Surgut, [3]Oncohaematology department N1, Leningrad Regional Clinical Hospital, [4]Oncology, haematology and BMT department, Petrov Research Institute of Oncology, [5]Oncohaematology department N2, Leningrad Regional Clinical Hospital, [6]Haematology department, City Clinical Hospital №31, Saint-Petersburg, [7]Haematology department, Republican Clinical Hospital, Petrozavodsk, [8]Haematology department, City Clinical Hospital №15, Saint-Petersburg, [9]Clinic of Profpathology and Hematology, Saratov State Medical University, Saratov, Russian Federation

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Has the submitted material been published in a journal (printed or online)?: No
Has the submitted material been presented or submitted to another event?: No
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Background: HIV infected patients are at risk of cancer including lymphomas despite the widespread accessibility of highly active antiretroviral therapy (HAART). In parallel with increasing number of patients living with HIV, the number of patients suffering from HIV-associated malignancies of hematopoietic and lymphoid tissues has increased. In the early days of the HIV epidemic, treatment of HIV-positive patients diagnosed with non-Hodgkin lymphomas (NHL) was mainly palliative. Despite these remarkable advances in outcomes recent years, there are few controversial issues in an optimal approach for the treatment of HIV-associated NHL. The role of rituximab and the concurrent use of HAART are still subjects of dispute.

Aims: This study focuses on the clinical, epidemiological characteristics and the outcome at 2 years of CD20+ lymphomas in HIV infected patients.

Methods: We performed retrospective multicenter study. An inclusion criterion was diagnosis of lymphoma in HIV infected patients. Twenty-six patients were enrolled with the period of observation from May 2006 to Feb 2014. The data of medical history, test results and treatment in hematological hospitals and "AIDS-centers" based on the established practice were analysed. The patients with Hodgkin's lymphoma (4), T-cell lymphoma (1), and solitary plasmacytoma (1) were excluded from the analysis. Primary end-poins were overall survival (OS) and time to progression (TTP) at 2 years in patients with HIV and CD20+ B-cell lymphomas. Secondary end-points were factors associated with OS and TTP at 2 years in patients with HIV and CD20+ B-cell lymphomas.

Results: Study group consisted of 20 patients with CD20 + lymphomas. The median follow-up of patients was 30 (15-106) months. Patients' clinical characteristics are outlined in table 1(a). HIV status: HIV was detected before the diagnosis of lymphoma in 50% of patients. Co-infection with hepatitis C virus was in 25% of patients. In 6 patients the level of CD4+ cell count and viral load at the diagnosis of lymphoma were assessed. The level of CD4+ cell count was less than 200 cells/mm (50-420) in 4 pts and 50% of patients the viral load were less than 1000 RNA copies in 1 mm (0-800 thousand copies/ml). Patients received from 4 to 8 cycles of chemotherapy (CT), in 50% patients >6 cycles, therapy regimens are outlined in table 1(b). There was no extra toxicity in CT in combination with rituximab and HAART. Overall survival at 2 years in HIV-infected patients with CD20+ B-cell lymphomas was 60%: Burkitt's lymphoma (BL) - 75%, diffuse large B-cell lymphoma (DLBCL) - 63,6%, intermediate lymphoma between BL and DLBCL - 50 %, undifferentiated B-cell aggressive lymphoma 33,3%, a patient with follicular lymphoma is alive. CT in combination with

HAART improves overall survival rate (70% vs 0%, p<0,0001). Usage of CT +rituximab improves overall survival (72,7% vs 44,4%, p=0,1) and significantly reduces the probability of progression of CD20+ B-cell lymphoma (9% vs 44,4%, p=0,028).

Image/Pictures:

Table 1. (a) patients characteristics	20
Diagnosis	n
diffuse large B-cell lymphoma (DLBCL)	10
Burkitt's lymphoma (BL)	4
"gray zone" lymphoma, intermediate between DLBCL and BL	2
undifferentiated B-cell aggressive lymphoma	3
follicular lymphoma grade 2	1
Age, median	38 (26 – 55)
Gender	50% males
ECOG 3-4	50%
Ann Arbor 3-4	85%
B symptoms	80%
↑ LDH (>2X)	40%
Extra lymphatic diseases	100%
CNS / bone marrow involvement	1 / 3
Table 1. (a) chemotherapy regimens	**20**
CHOP like	15
EPOCH	1
Hyper-CVAD	3
ALL like (Moscow) 2004	1
CT +R	11
CT without R	9
CT +HAART	17
CT without HAART	3

Summary/Conclusion: Diffuse large B-cell lymphomas characterized by aggressive course more often then another lymphomas were diagnosed in HIV infected patients. Overall survival at 2 years in patients with HIV and CD20+ B-cell lymphomas was 60%. CT in combination with HAART (70%) and rituximab (72,7%) improved overall survival. Usage of rituximab significantly reduced the probability of progression of CD20+ B-cell lymphoma in HIV infected individuals.

Email address: marina.popova.spb@gmail.com

Keywords: HAART, HIV related lymphoma, Non-Hodgkin's lymphoma, Rituximab