Abstract Handbook

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ABSTRACT HANDBOOK

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Leukemia and Lymphoma

0117: Diagnosis and treatment results of children with acute myeloid leukemia with the chromosomal translocations

Bazarbayeva A., Manzhuova L., Karimova K., Aitkali M., Nauryzbayeva A.

Department of Science, JSC "Scientific Center of Pediatrics and Pediatric Surgery", Almaty, Kazakhstan

Email: bazarbaeva_aigul@mail.ru

Keywords: acute myeloid leukemia, chromosomal translocations, pediatric oncology, molecular genetic defects, survival rate

Objective: To analyze laboratory data and the results of therapy in children with acute myeloid leukemia (AML) with individual chromosomal translocations.

Methods: Medical histories of 157 patients with AML who received treatment at the Scientific Center of Pediatrics and Pediatric Surgery in Almaty, Kazakhstan in the period from 2017 to 2021 years were evaluated. To analyze the survival rate of the patients Kaplan Meier method was used.

Results: Various chromosomal translocations were found in 49 (31%) out of 157 patients. M1-2 morphological variant identified in 47%, M3 in 43%, M4, M5a and M5b variants identified in one patient each. Co-expression of lymphoid markers occurred in 32% of children. Among the identified aberrations translocation t(8;21) (q22;q22);RUNX1-RUNX1T1 occurred in 51% of cases, translocation t(15;17)/PML/RARA in 43%, and t(3;14), t(11;15) and t (4.11)(q21.q23) were identified in one case each. According to the results of therapy, the survival rate for children with AML having translocation t(8;21) (q22;q22)/RUNX1-RUN X1T1 was 60%. The survival rate of 21 children with translocation t(15;17)/PML/RARa was 64%. Patient with t(3;14) developed an

isolated bone marrow relapse 8 months after therapy started. One child with t(4.11)(q21.q23) had hematopoietic cell transplantation and is alive. Now is under observation. The patient with t(11;15) is in complete remission for 2 years.

Conclusions: Identification of molecular genetic defects before the therapy starts is an additional marker of the prognosis of the disease course and monitoring the effectiveness of therapy. In our study, 49 (31%) patients with AML had various genetic translocations. Translocation t(8;21) and translocation t(15;17), occurred most frequently, 51% and 43% of cases respectively. Out of 49 patients with translocations, a third (32%) had a mixed immunophenotype with co-expression of lymphoid markers. The survival rate of 25 AML patients with t(8;21) (q22;q22)/RUNX1-RUN X1T1 translocations was 60%. Survival of 21 patients with t(15;17)/PML/RARa translocation occurred in 64% .

Leukemia and Lymphoma

0119: Pediatric acute myeloid leukemia and impact of nutritional status – outcome from a government facility in north India

Verma S., Radhakrishnan N.

Pediatric Hematology Oncology, Post Graduate Institute of Child Health, Noida, UP, India

Email: shruti90178@gmail.com

Keywords: acute myeloid leukemia, nutritional status, malnutrition, mortality, developing countries, survival rate

Objective: Childhood Acute Myeloid leukemia (AML) remains a life-threatening malignancy with a current survival rate of around 70 % in developed countries with effective support care. In developing countries, it varies from 25 to 53%. Prognosis has been linked to several factors, such