

## **DIAGNOSIS IMMUNOPHENOTYPE AT PATIENTS CHILDREN WITH ACUTE LEUKEMIA BY DINT OF METHODS FLOW CYTOFLUORIMETRY**

Baratova D.A.<sup>1-2</sup>, Mamatysaeva U.A.<sup>2-3</sup>.

<sup>1</sup>"Eurasian Center of Oncohematology, Immunology and Therapy" Saint-Petersburg, Russia.

<sup>2</sup>"National register of hematopoietic stem cells Kirgizia" Saint-Petersburg, Russia.

<sup>3</sup>National Center of Oncology and Hematology" Bishkek, Kyrgyz Republic.

In the diagnosis of acute leukemia with by dint flow of cytofluorimetry, it is necessary to evaluate the immunophenotypical characteristics of tumor cells and determine the direction of myeloid, B and T linear or rare variants of vaguely linearity.

The aim of our study is the diagnosis and analysis of immunophenotypes of acute leukemia in children of the Kyrgyz Republic (Kirgizia) using of methods flow cytofluorimetry.

### **MATERIALS AND METHODS:**

From November 2016 to September 2018, the study group included -101 patients with acute leukemia, of them 41-girls, 60-boys, at the age of from 1,5 years to 16 years, who were examined in the department of pediatric oncology of the National Center of Oncology and Hematology of the Ministry of the Kyrgyz Republic (Kirgizia) and the Department of Pediatric Hematology of the Osh Interregional Clinical Children's Hospital. Immunophenotyping was spend in city Bishkek. Research is being conducted for the first time and further immunophenotyping in children with acute leukemia continues.

### **METHOD BY DINT OF FLOW CYTOFLUORIMETRY:**

The material for the study is the bone marrow. Immunophenotyping of leukemia(blast)cells performed on a flow cytofluometer Cytomics FC500 (Beckman Coulter, USA) using monoclonal antibodies Beckman Coulter.

### **RESULTS AND DISCUSSION:**

When conducting us research, the diagnosis was established on the basis of clinical and complex laboratory and diagnostic indicators.

Currently, cytological, cytogenetic, cytochemical, morphological studies stay a powerful tool for diagnosis in clinical practice, but for a detailed study of bone marrow cells, using flow cytofluorimetry, which the as has their shortcomings, but , and, undoubtedly, that has great advantages.

Immunophenotyping taking into account the assessment, detailed characteristics of tens and hundreds of tumor cells in acute leukemia, is one of the sensitive methods in differential diagnosis, allows reveals a characteristic immunophenotype and it is necessary to select an effective chemotherapy program in a timely manner and after therapy to achieve complete remission, detect minimal residual disease (MRD).

Revealed, during our observation, among acute leukemias, that acute lymphoblastic leukemia prevails in children of the Kyrgyz Republic(Kirgizia)- 66,7% cases, the proportion of acute myeloid leukemia reaches -32, 2% cases, acute leukemia of mixed phenotype - 1,1% cases.

For elicitation feature flow and frequency prevalence of acute leukemia in children in the Kyrgyz Republic(Kirgizia), is necessary further research.

**CONCLUSION:**

1. Explore bone marrow in sick children with acute leukemia, by dint of methods flow cytofluorimetry.
2. Screening study for determine the linear directing of tumor cells.
3. Identify immunological variant of acute leukemia.