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DIAGNOSIS THE IMMUNOPHENOTYPIC MARKERS IN PATIENTS CHILDREN WITH ACUTE MYELOID LEUKEMIA BY METHOD OF FLOWING CYTOFLUORIMETRY

Baratova D. A¹⁻², Mamatysaeva U.A³⁻², Mademilova Ch. M³⁻².

¹"Eurasian Center of Oncohematology, Immunology and Therapy" Saint-Petersburg, Russia.

²"National register of hematopoietic stem cells Kirgizia" Saint-Petersburg, Russia.

³National Center of Oncology and Hematology" Bishkek, Kyrgyz Republic.

At the diagnosing acute myeloid leukemia (AML) by dint of method of flowing cytofluorimetry, it is necessary to determine the myeloid directionality of cell linearity and evaluate the immunophenotypic features of the expression of myeloid antigens of tumor cells.

The aim of our study is to elicitation and analyze a variant the linearity of immunophenotype at acute myeloid leukemia in patients children of the Kyrgyz Republic (Kirgizia) by dint of method of flowing cytofluorimetry.

MATERIALS AND METHODS:

The group of research from November 2016 to November 2018 with acute myeloid leukemia have entered- 30 patients of children citizens of the Kyrgyz Republic(Kirgizii),of them female -16, male -14, in aged 1,5 to 16 years, who were examined in the Department of Pediatric Oncology of the National Center of Oncology and Hematology of the Ministry of Health of the Kyrgyz Republic (Kirgizia)and in the Department of Pediatric Hematology of the Osh Interregional Clinical Children's Hospital in city Osh, in St. Petersburg were a consulted in the doctors of the Eurasian Center of Oncohematology, Immunology and Therapy. Immunophenotyping by dint of method of flowing cytofluorimerty was spendend in city Bishkek of the Kyrgyz Republic (Kirgizia).

The research spends the first time and further immunophenotyping by dint of flowing cytofluorimetry in patient's children with acute myeloid leukemia continues.

METHOD BY DINT OF FLOWING 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:

During the period our research, the diagnosis of acute myeloid leukemia (AML) was established on the basis aggregate of clinical data and complex laboratory-diagnostic indicators. By comparing only cytogenetic, molecular genetic, morphological results, we can install a definitive diagnosis. At the diagnosis and differential diagnosis of tumor cells, one of the most specific is the detection of myeloperoxidase in the cytoplasm of tumor cells, in case of the absence myeloperoxidase, should be research other myeloid antigens, including markers of rare forms of AML(megakaryoblastic,

erythroid), as well as is necessary and extremely important exclude lymphoid origin leukaemic tumor cells.

The results of immunophenotyping of tumor cells in acute myeloid leukemia (AML) were characterized individually, with account the sensitivity of this method.

Thus, for the specific, resolute, correct decision selection of therapy and the targeted treatment of AML, it is necessary to establish the correct diagnosis. In the Kyrgyz Republic (Kirgizia) elicitation in patients children acute myeloblastic leukemia (M1) in 10% of cases, acute myeloblastic leukemia (M2) in 53% of cases, acute promyelocytic leukemia (M3) in 10% of cases, acute myelomonoblastic leukemia (M4) in 20% of cases, acute monoblastic leukemia (M5a, M5b) in 7% of cases.

CONCLUSION:

1. Explore bone marrow in patient's children with acute myeloid leukemia by dint of flowing cytofluorimetry.
2. Exclude variants of acute lymphoblastic leukemia and rare forms linearity of disease.
3. Evaluate the expression of myeloid antigens for the myeloid directionality of tumor cells and detect myeloperoxidase in the cytoplasm of tumor cells.
4. In parallel to spend cytogenetic, molecular-genetic and morphological studies.

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