autologous tumor. Anti-IL-6Rα block reverses tumor EMT but does not inhibit effector responses.

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OP 24

NIVOLUMAB EXPERIENCE IN PEDIATRIC MALIGNITIES

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Objective: Nivolumab is a human monoclonal antibody to programmed cell death receptor 1 (PD-1) that acts as an immune checkpoint inhibitor and is used in the immunotherapy of various types of advanced or metastatic cancer. The aim of this study is to evaluate the efficacy of nivolumab in pediatric patients with various highly malignant tumors and to share the experience of Ankara University Pediatric Oncology Department. **Methodology:** Eight patients were included in the study. Median age at diagnosis is 11.3 years (min 4.9- max 13.9). Treatment indications were malignant mesothelioma (1), rectal adenocarcinoma (1), malignant melanoma (1), ewing sarcoma (2), osteosarcoma (1), non-hodgkin lymphoma (1) and hodgkin lymphoma (1). **Results:** Four patients died due to progressive disease. Complete remission was achieved in four patients diagnosed with malignant mesothelioma, rectal adenocarcinoma, malignant melanoma and Hodgkin lymphoma. **Conclusion:** Immune checkpoint inhibitors are one of the greatest advances in oncological therapy and improve the overall survival of patients with advanced and resistant malignancies. More studies are needed to evaluate the efficacy of immune checkpoint inhibitors in pediatric tumors.

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PEDIATRIC LEUKEMIAS

OP 25

MRD IN BLASTIC PLASMACYTOID DENDRITIC CELL NEOPLASM

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Objective: Blastic plasmacytoid dendritic cell neoplasm (BPDCN) is an extremely rare disease with an aggressive course. Plasmacytoid dendritic cells (PDCs) are a component of the innate immune response: they secrete large amounts of type I interferons. There are several fractions of PDC in normal bone marrow: (CD123+CD4+CD56+) and (CD123+CD4+CD56-). PDC fraction CD123+CD4+CD56+ is a non-tumor analogue in BPDCN. Normally, the ratio of CD56+PDCs to CD56-negative PDCs is 0.129±0.144. **Methodology:** AIM. Determination of the principles for assessing minimal residual disease (MRD) in the bone marrow by flow cytometry in BPDCN. **Materials and methods:** In the following case, the diagnosis of BPDCN with lesions of the skin, bone marrow, and spleen was established using the IHC study of the skin biopsy, morphological, flow cytometric studies of the bone marrow, as well as CT of the chest and abdomen. In a diagnostic flow cytometric study of the bone marrow, tumor cells expressed CD56, CD4, CD123 **Results:** At the end of the treatment stages,MRD was determined by flow cytometry.Isolation of CD56-positive PDCs was carried out on the basis of light scatter parameters, nucleotropic dye SYTO41,weak expression of CD45,co-expression of CD4,CD56,CD123.In the analysis,the ratio of CD56-positive PDCs to CD56-negative PDCs increases from 0.063 to 8.9, while the number of blasts (1.2%) and the proportion of CD56-positive PDCs among myelokaryocytes (0.06%) changes slightly.One month later,the relative content of CD56-positive cells was 81.2% of the PDCs,while the morphological study showed an increase in the number of blasts to 5.2%.One more month later,blast cells numbered 85% in the bone marrow punctate. **Conclusion:** In the described case, the dynamics of the ratio between CD56-positive and CD56-negative PDCs showed an increase in the tumor clone in the relapse of the disease. The change in this ratio became noticeable in the analysis of hypocellular bone marrow in the absence of an increased number of blasts in the morphological study of this sample. Measurement of the ratio of CD56+CD123+CD4+ cells to CD56-CD123+CD4+ cells is an effective strategy for Objective assessment of tumor burden and the likelihood of bone marrow tumor recurrence of blastic plasmacytoid dendritic cell neoplasm.

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OP26

EVALUATION OF MICROBIOLOGICALLY DOCUMENTED BLOODSTREAM INFECTIONS IN PEDIATRIC HEMATOLOGY/ONCOLOGY PATIENTS: RESULTS OF TEN YEARS

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