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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Objective: In pediatric hematology/oncology patients, infections are the main cause of prolonged hospital stay, increased mortality and high cost following relapse or progression. In this patient group, infections caused by multidrug resistant bacteria are common and affect morbidity and mortality rates. We aimed to determine the frequency and antibiotic susceptibility of bacteria isolated from blood cultures of the patients with malignant and non-malignant diseases in our hospital over a ten-year period. **Methodology:** patients admitted to the Pediatric Hematology/Oncology Service between January 2011- June 2021 were evaluated. The most common disease was acute lymphoblastic leukemia (27%). The first isolated bacteria of same species for each patient were included, contaminated cultures were not included. Blood cultures incubated in the Bactec FX automated blood culture system for five days. Bacteria were identified by conventional methods or automated systems. Antibiotic susceptibility tests were performed by disc diffusion or gradient test and were evaluated according to guidelines. **Results:** A total of 4631 blood culture samples from 296 patients were analyzed. Positive signal was seen in 620 samples. Blood culture posivity was 13.4%. Total 298 blood culture samples were evaluated. Gram positive bacteria rate were 59% and 41% gram negative. The most frequently (58.7%) isolated gram positive bacteria were methicillin-resistant coagulase negative *staphylococci* and gram negative bacteria were *Klebsiella pneumoniae* (28,5%). The rate of bacteria producing extended spectrum beta lactamase (ESBL) was detected as 74% for *Escherichia coli* and 69% for *Klebsiella pneumoniae*. **Conclusion:** It is important for each center to determine its own causative agents and their resistance patterns in bloodstream infections. Gram positive bacteria were found dominantly in our study. The high ESBL rate in E.coli and K.pneumoniae isolates is remarkable. Early detection of the causative agents in bloodstream infections of the pediatric hematology/oncology patients and initiation of prompt treatment are important to reduce mortality.

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NURSING

PSYCHOLOGICAL SUPPORT FOR CANCER PATIENTS

OP 27

INFLUENCE OF CANCER NEWS ON QUALITY OF LIFE OF PATIENT'S FAMILIES: AN OBSERVATIONAL STUDY

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Objective: Malignant disease diagnosis brings great psychological suffering to the patient, and the sickness might have catastrophic ramifications for the relatives. The Objective of this study is to assess influence of cancer news on quality of life of patient's families. **Methodology:** This study was prospective cohort study conducted at the oncology department of a tertiary care Hospital, Pakistan for the duration of one year. The quality of life was assessed as per pre-defined questionnaire both from two first degree relatives at each clinical visit during treatment every week and every month for six months after completion of treatment. Data analysis was done by employing SPSS version 21. **Results:** 180 family members were included. QOL of family members was 1.54±0.57 (p=0.001). Anxiety/depression score of the family members was 1.67±0.64 while in control group it was 1.50±0.64 (p=0.031). The EQ VAS score in control group was 66.5±16.7 whereas in caregivers group, it was 71.3±18.8 (P=0.023). Stress was observed in 98 (54.44%) participants in caregivers group. Moderate-severe depression was observed in 45(25%) vs 21(11.67%) participants in caregivers vs control group, respectively (p=0.041) **Conclusion:** Our findings reveal that family caregivers of cancer patients face mental health issues and a decline in health-related quality of life. To reduce the effect of caring on the mental health and health related quality of life of family caregivers in Pakistan, culturally suitable caregiver support programs are required.

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