OP 22

MOLECULAR CHARACTERISTICS AND TREATMENT RESPONSE TO COG ALL PROTOCOL IN CHILDREN; A 16-YEAR SINGLE-CENTER STUDY

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Objective: Acute Lymphoblastic Lekumia is the most prevalent cancer type in children. While most data from Turkey primarily focuses on BFM protocols, our study uniquely concentrates on the COG ALL protocols. In this study we aimed to analyze the molecular characteristics and outcomes of the patients diagnosed with ALL who were treated at the Pediatric Hematology and Oncology department of Acıbadem Mehmet Ali Aydınlar University Faculty of Medicine, Altunizade Hospital. **Methodology:** We have reported all the cases that have achieved complete treatment of ALL. Patient risks were assessed by diagnosis, demographics, and clinical settings, followed by protocol selection. Analysis of risk stratification involved immunophenotyping, and genetic characteristics. **Results:** 46 patient participated in the study. Standard risk, high risk and very high risk was observed in 60.5%, 27.9% and 11.6% patients respectively for B ALL and all T-ALL patients were admitted to the high risk group. 28.3% had negative prognostic genetic mutations. At the end of the induction therapy (At the 29th day), 80.4 % of the patients had MRD level below 0,1%. Mean survival time was 71,6 months. 4,3% of patients had bone marrow relapse, and after second-line treatment, are now relapse free. **Conclusion:** This study assesses the pediatric ALL patients treated with COG protocols from Turkey in a single center over a span of 16 years. Follow up processes and therapy responses taking into consideration their demographical characteristics, clinical attributes, genetic profiles, complications and outcomes. COG ALL Protocols in Turkey are being used only by the COG international corresponding members and are as promising as the BFM protocols.

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Pediatric Hematology Abstract Categories

Inherited Bone Marrow Failure Diseases
OP 23

INVESTIGATION OF SALİVARY MIR-9 AND SERUM CIP2A LEVELS IN FANCONI ANEMIA PATIENTS AT HIGH RISK OF DEVELOPING ORAL SQUAMOUS CELL CARCINOMA

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Objective: Fanconi anemia (FA) is a rare bone marrow failure syndrome caused by mutations in DNA repair genes, and the risk of developing Oral Squamous Cell Carcinoma (OSCC) in FA patients is higher than in the normal population and is seen at younger ages. mi-RNAs and proteins associated with signaling pathways such as PI3K and Wnt, which play a role in cancer pathogenesis, are important biomarker candidates for OSCC development. Tumor suppressor miR-9 have been reported that abnormally expressed in many different cancers and OSCC. Cancerous inhibitor of protein phosphatase 2A (CIP2A) is a characterized human oncoprotein that has been studied in the most of human malignancies. Squamous cell cancers frequently develop in FA patients. Therefore, in this study, we aimed to evaluate the salivary miR-9 and serum CIP2A levels of our FA patients who are likely to develop cancer, and to evaluate them in terms of the risk of developing OSCC and compared them with the healthy control group. **Methodology:** Saliva and serum samples were collected from 25 OSHK patients, 24 FA patients and 40 healthy volunteers, and total RNA was isolated from saliva samples and quantitative Real-Time PCR was performed with the miRCURY LNA miRNA PCR Assay (Qiagen, Hilden, Germany). miR-9 saliva levels were normalized and calculated by the Livak Method. ELISA (Bioassay Technology Laboratory, Shanghai, PRC) method was used to measure serum CIP2A levels. **Results:** According to our data, salivary miR-9 levels of both OSCC and FA patients were lower than healthy controls (p=0,01 and p=0,017). In OSCC patients, miR-9 level was related to lymph node metastasis (p=0,04). Serum CIP2A levels in OSCC patients and were higher than in healthy controls (p<0,001). **Conclusion:** Our findings indicate that miR-9 and CIP2A may be remarkable biomarkers in the development of OSCC. Since FA patients have a high risk of developing OSCC, close follow-up of the physical examination findings of miR-9 and CIP2A levels can be beneficial.

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