

from his MSD. He had primer engraftment failure with aplasic bone marrow. The other was 12-year-old boy, underwent BU-Cy based allogenic HSCT from his MSD. He had severe GIS GVHD and prolonged isolated thrombocytopenia. **Conclusion:** Despite busulfan based conditionings used to be more common approach in pediatric patients underwent allogenic HSCT for TDT, treosulfan-based conditioning is gaining acceptance. Our retrospective study confirms the efficiency and safety of both agents. Treosulfan, fludarabine and thiotepa seem to be appropriate for minimizing the risk of complications, particularly for VOD.

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OP 25

EFFECT OF GRAFT VERSUS HOST DISEASE PROPHYLAXIS ON THE LEUKEMIA FREE SURVIVAL IN PEDIATRIC PATIENTS WHO HEMATOPOETIC STEM CELL TRANSPLANTED FOR LEUKEMIA

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Objective: Hematopoietic stem cell transplantation (HSCT) is an important treatment modality for leukemia, the most common childhood malignancy. Graft versus host disease, one of the most important complication of transplantation, is the most important cause of morbidity and mortality. In our study, we aimed to show the effect of methotrexate doses given in transplants due to leukemia, the development of acute or chronic GVHD, on leukemia-free survival. **Methodology:** Patients who underwent HSCT due to leukemia, between April 2010-October 2020 at a pediatric transplantation unit were included in the study. Methotrexate doses given to patients; were grouped as 10mg/m² on day 1,3,6; 10mg/m² on day 1,3, 5mg/m² on day 6; 10mg/m² on day 1, 3; 10mg/m² on day 1 and 5 mg/m² on day 3,6; 10 mg/m² on day 1 and also 5 mg/m² on day 1. The effects of these groups on event-free and overall survival were evaluated. **Results:** Recurrence was not observed in 72 of 93 patients evaluated in the ALL group (77.4%). The conditioning regimens were considered TBI-Busulfan-based regimens. No significant difference was observed in terms of LFS. The absence of aGVHD in the ALL patient group significantly prolongs LFS, when evaluated according to CR1-2-3 groups, CR2 significantly extended the LFS time. Effect of GVHD prophylaxis on LFS was evaluated no significant effect of methotrexate dose on LFS was observed. **Conclusion:** The most important factor affecting leukemia-free survival is the state of remission. The longest duration of LFS was detected in CR1. The effect of methotrexate dose as GVHD prophylaxis has not been determined. There was no consensus in the studies on methotrexate doses in the literature. It is necessary to study with a larger cohort.

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Pediatric Oncology Abstract Categories

Rare Tumours and Histiocytosis OP 26

LANGERHANS CELL HISTIOCYTOSIS IN TURKISH CHILDREN; 30 YEARS OF EXPERIENCE FROM A SINGLE CENTER

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Objective: Langerhans-Cell Histiocytosis, the most common histiocytic disorder, is characterized by inflammatory lesions with infiltrating CD1a+/CD207+ pathologic dendritic cells. The extent of disease is highly variable, from single lesion disease to life-threatening disseminated multisystem disease. We aimed to determine the demographic characteristics and the clinical outcomes of children with LCH. **Methodology:** The files of 81 patients diagnosed with LCH in Ankara Oncology Hospital, Dışkapı Children's Hospital and Ankara City Hospital between 1993 and 2023 were retrospectively analyzed. Data collected from the files included characteristics, age, sex, symptoms, physical examination findings, site of involvement, laboratory findings at diagnosis, procedure applied, treatment type used, and outcome. **Results:** The median age was 5 (0.1-17) with a median follow-up of 3 years (0.1-14) (Table1). The most common complaint was a bone lesion-related symptom; swelling (31%), pain (19%). Surgery was the only treatment in 19, chemotherapy in 22, radiotherapy in 1, surgery + chemotherapy in 35 (43%). Vinblastine + prednisolone was most commonly (36%) used. A patient with BRAF600VE was treated with vemurafenib. Recurrence was detected in 13 (16%) patients. Three patients died (3.7%) with refractory disease. **Conclusion:** Bone and skin were the most frequently involved systems in our study. Prognostic factors affecting event-free survival (EFS) were multi-system disease (5-year EFS 62% versus 87%, p=0.01) and hematologic system involvement (5-year EFS 42% versus 82%, p=0.02). Consistent with the literature, our overall survival (OS) rate was found to be high (5-year OS 95%). Patients with single-system disease had excellent survival (100%).

	No (n=81)	%
Median age at diagnosis (range)	5 (0,1-17 years)	
Age distribution		
≤24 ay	22	27
>24 ay	59	73
Sex		
Male	55	68
Female	26	32
Staging		
Single-system disease	57	70
Multisystem disease	24	30
Sites of involvement		
Bone isolated	38	47

Bone multiple	28	35
Skin	18	22
Lymph node	13	16
Lung	13	16
Liver	8	10
Hematologic	6	7
CNS/neurodegenerative	6	7
Diabetes Insipidus	6	7
GIS	2	3
Chemotherapy protocol		
DAL-HX 83	31	38
LCH-III	19	24
LCH-IV	8	10

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Pediatric Oncology Abstract Categories

Supportive Care and Palliative Care OP 27

EVALUATION OF VIRAL RESPIRATORY TRACT INFECTIONS IN PEDIATRIC HEMATOLOGY-ONCOLOGY PATIENTS BEFORE COVID-19 PANDEMY

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Objective: Respiratory viruses are an important cause of morbidity and mortality in pediatric hematology oncology patients. We aimed to determine the infection rate, clinical and epidemiological characteristics of respiratory viruses in pediatric patients with hemato-oncological malignancy, aplastic anemia and congenital neutropenia and to show how these viruses affect the primary disease course and treatment. **Methodology:** Between August 2015 and December 2018, 97 patients aged between 5 months and 215 months who were admitted to Istanbul University, Istanbul Faculty of Medicine, Department of Pediatric Haematology-Oncology with acute respiratory tract infection findings and diagnosed with Haemato-Oncological Malignancy, Congenital Neutropenia, Aplastic Anaemia and who had viral respiratory panel were retrospectively analysed. In the viral respiratory panel test, nasal swab samples of the patients were evaluated by RT-multiplex PCR method. SPSS (Statistical Package for the Social Sciences) 22.0 programme was used for statistical analyses. **Results:** A total of 97 patients, 52 males (53.6%) and 45 females (46.4%), aged between 5 months and 215 months (78.81±60.17 months, median 60 months) were included in

the study. The most common viral respiratory panel (VRP) positivity was observed between 5 months and 208 months and the mean age was 85.49±61.73 months (median=81 months). Although 44.3% (n=43) of the patients presented in winter and 23.7% (n=23) in autumn, VRP positivity was more common in patients presenting in spring (n=43, 70%) and winter (n=22, 51.2%) seasons. When the VRP results of the patients were analysed; 50.5% (n=49) were positive; 39.2% (n=38) were mono-infection, 11.3% (n=11) were co-infection and 49.5% (n=48) were negative. When we looked at the VRP results, rhinovirus (hRV) was the most common virus with a frequency of 22.4% (n=11). Other viruses were Respiratory Syncytial Virus (RSV) A/B (14.2% n=7), Parainfluenza (14.2% n=7), Influenza (8.2% n=4), Coronavirus (8.2% n=4), Metapneumovirus (2.1% n=1), Mycoplasma pneumonia (6.1% n=3). Among the co-infections seen in a total of 11 patients, hRV and RSV A/B were the most common viruses accompanying other viruses with a rate of 63.6% (n=7). Among a total of 67 patients who were in various stages of CT and whose treatment was completed, the most common VRP positivity was seen in patients in the induction phase with a rate of 28.3% (n=19). Of the 12 patients with co-infection, 5 (41.6%) were in the induction phase. Cough (n=59 60.8%) and fever (n=47 48.5%) were the most common presenting complaints, accompanied by wheezing (n=17 17.5%), respiratory distress (n=11 11.3%), diarrhoea/vomiting (n=9 9.3%) and muscle pain (n=9 9.3%). VRP was positive in 43.9% of patients presenting with fever. The most common hRV virus was found most frequently in spring and winter seasons. Viral respiratory infection positivity was most frequently seen in ALL (n=16 33.3%), second most frequently in Hodgkin's Lymphoma (n=5 10.5%) and Neuroblastoma (n=5 10.5%). Among the patients, upper respiratory tract infection (URTI) (74.2%, n=72) was more common than lower respiratory tract infection (LRTI) (25.8%, n=25). The rate of LRTI in co-infections (28.0%, n=14) was higher than the rate of URTI (6.9%, n=5) and was statistically significant (p=0.021). When hemogram and biochemistry results were analysed, although neutropenia (50.5%) and lymphopenia (50.5%) were observed at a high rate in patients with positive VRI, they were not statistically significant when compared with VRP positivity. Of the patients with VRP positivity (50.5% n=49), 34.6% (n=17) required hospitalisation due to viral respiratory infection. Of the patients included in the study, 4 patients need intensive care unit due to bacterial pneumonia (Mycoplasma pneumonia and Pneumocystis jirovecii), bleeding into a mass (hepatoblastoma) and pericardial effusion (peripheral T cell lymphoma). In 7 patients whose chemotherapy duration was prolonged, the duration of treatment prolongation ranged between 4 and 60 days (mean 19.29±20.69 and median 10 days). No VRI-related mortality was observed among the patients during the follow-up period. **Conclusion:** Identification of respiratory viruses in pediatric hematology oncology patients contributes to the management of their primary disease.

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