Objective: Congenital neutropenia is a rare disorder. The survival and quality of lives of these patients were improved with avoidance of infections, GCSF usage and appropriate usage of antibiotics in infections. In this study, the precautions for infections and the treatment compliance, the level of knowledge about the disease and the reasons that may affect the different behavior and compliance in our patients and caregivers were planned to be determined. **Case report:** Questionnaires prepared in order to determine how the social, cultural and economic conditions of the families of children with Congenital Neutropenia could affect their behavior and knowledge levels were filled in one-on-one video interviews with the caregivers. **Methodology:** Behaviors and attitudes of families were questioned, their level of knowledge about the disease was evaluated with a system defined over 40 points, and they were evaluated as very good (40-35), good (34-30), moderate (29-25), bad (25-20) and very bad (<19). The economic status of the families was classified by income perception. The relationship between the sociocultural economic status of the families and their knowledge and attitudes about the disease were evaluated. **Results:** 31 patients and 25 families were enrolled in the study. Genetic tests were performed to all patients and 70.1% homozygote HAX1 and 16.1% ELANE mutation was found. GCSF treatment was started to 96.8%. Consanguineous marriage was defined in 77.3% of families. When families were classified according to their level of knowledge about congenital neutropenia, 8% (n= 2) very good, 40% (n=10) good; 36% (n=9) moderate, 8% bad (n=2) and 8% very bad (n=2) knowledge were determined. **Conclusion:** Congenital neutropenia is a rare disorder. HAX 1 mutation is the most common mutation in our country. The more knowledge of patients and caregivers about the disease and general approach cause improvement in the quality of life and survival of these patients. It is necessary to prepare tests that will enable to assess the disease knowledge level and quality of life scales developed for these patients.

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OP 22

MANAGEMENT AND OUTCOMES OF NEUTROPENIA IN PREVIOUSLY HEALTHY CHILDREN

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Objective: Immun-component children with moderate neutropenia do not have an increased risk for severe bacterial infections. However, there is limited data for the management of benign neutropenia in children. Therefore, we aimed to determine the most common etiology and outcomes in children with neutropenia. In addition, we compare the laboratory findings of different severity levels (neutrophil levels $<0.2 \times 10^3$/mL, 0.2×10^3-0.5×10^3/mL, 0.5×10^3- 1×10^3/mL, 1×10^3- 1.5×10^3/mL). **Methodology:** This retrospective study included children with neutropenia (neutrophil $< 1.5 \times 10^3$/mL) diagnosed between December 2019-November 2020 in a tertiary hospital. The patients aged between one month-eighteen year had no history of chronic disease, immunosuppressive therapy, malignancy, or drug administration. Ministry of Health's ethics committee approved the study. We evaluated the etiologies and compared age, sex, time of follow-up, duration of neutropenia, thrombocyte, monocyte and immunglobulin levels of neutrophil levels ($<0.2 \times 10^3$/mL, 0.2×10^3-0.5×10^3/mL, 0.5×10^3- 1×10^3/mL, 1×10^3- 1.5×10^3/mL). **Results:** The most common etiology was acute neutropenia (81.5%) and infections (66%). Five (2.5%) had coronavirus disease. Chronic and autoimmune neutropenia are the most common in chronic neutropenia. Lower neutrophils are associated with prolonged neutropenia (p=0.003), higher monocyte (0.03), higher IgM levels (0.038), younger ages (p<0.001), higher IgG (p=0.002) levels. Sex, time of follow-up, thrombocyte levels, total IgE levels are similar in children with different neutrophil counts. **Conclusion:** Our study demonstrates the etiology in children with neutropenia. The most common etiology is acute neutropenia with infections. In SARS-CoV2 diseases, neutropenia is less common than other hematologic findings. However, we detected in two point five percent of all. Unknown etiologies are also seen in the acute setting. Immun neutropenia and chronic idiopathic neutropenia are the leading causes of chronic cases. IgM levels were higher than the standard ranges in the agranulocytosis group, with a mean age of 1,05 ± 0,80. Therefore, children with ages of one-two should be carefully checked and followed for immunodeficiencies.

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LEUKEMIA

OP 23

POST-TREATMENT NUTRITIONAL STATUS OF CHILDREN WITH ACUTE LYMPHOBLASTIC LEUKEMIA

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Objective: In this study, we aimed to investigate the nutritional status after treatment in pediatric patients who have completed treatment with the diagnosis of acute lymphoblastic leukemia. **Methodology:** We analyzed the data obtained by evaluating patients' answers to the questionnaire consisting of questions containing a Likert scale, laboratory tests, and anthropometric measures. **Results:** Forty-one patients (22 male, 19 female) aged between four and 19 years with a mean age of 11.98 ±3.74 years were included. Mean body mass index (BMI) was 66.31±33.06 percentile, mean bone age was12.16± 3.99 years. In 40 patients under the age of 19 years, one patient (2.5%) was underweight, 23 patients (57.5%) were normal, six patients (15%) were overweight, six patients were (15%) obese, four patients (10%) were extremely obese. There was no statistically significant difference between the genders in terms of BMI (p:0.828). Of the 41 patients, 73.2% stated that their eating habits changed negatively after the treatment was completed, 2.4% used nutritional supplements,

4.9% used herbal medicine. 17.1% of the patients consumed two meals/day a day, 70.7% three meals/day, 7.3% meals/day, 4.9% 4≤ meals/day; 34.1% were fed mostly with carbohydrates, 7.3% mostly with protein, 17.1% with mostly fat-containing food, 4.9% with mostly processed food and 36.6% were fed with a balanced diet. In their daily diets, 51.2% of the patients consumed processed food, and 48.8% did not consume any processed food. Of the patients, 80.5% were not involved in any kind of sports activity. 14.6% of patients stated that they spend > 5 hours/day, 12.2% 3-5 hours/day, 70.7% 1-3 hours/day, and 2.4% < one hour/day in front of a screen. In 73.2% of patients' vitamin D level was <12 ng/mL and in 26.8% between 12 and 20, ng/mL. In 19.5% vitamin B12 level was < 200 pg/mL. Selenium deficiency was detected in 12.2%, zinc deficiency in 29.3%, vitamin C deficiency in 12.2%. **Conclusion:** Nutritional disturbances are not uncommon in survivors of pediatric acute lymphoblastic leukemia. It is important to closely monitor and raise awareness of these children in terms of unbalanced nutrition, inactivity, and the development of a tendency to gain weight.

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OP 24

ACUTE MEGACARYOBLASTIC LEUKEMIA IN CHILDREN: DIAGNOSTICS AND MRD MONITORING

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Objective: Acute megakaryoblastic leukemia (AMKL) is a rare subtype of acute myeloid leukemia (AML) associated with poor prognosis for all patients except children with t(1;22) or Down syndrome. The frequency of complete remission in case of AMKL is comparable to the frequency of it in other variants of AML but the median survival is much lower. This determines the necessity of more thorough evaluation of treatment effect using flow cytometry accessment of minimal residual disease (MRD). **Methodology:** The clinical and immunological profile of 8 girls and 9 boys with de novo AMKL between the ages of 3 months–11 years old was analyzed. The primary leucocytosis median was 10,25; only one patient had hyperleukocytosis (53*x*109/l) at presentation. The measurement of MRD was performed in 6 patients using multiparameter flow cytometry. The measurement of MRD performed after induction therapy on the basis of megakaryocytic markers, weak CD45 expression using the initial iimmunophenotype patterns. **Results:** Adequate measurement of the level of MRD had required extensive diagnostic immunophenotyping in order to determine the aberration of megakaryoblasts. CD9(83,3%), CD33(75%), CD34(60%), CD13(50%) apart from megakaryocyte markers (100%) were most common for blast cells in case of AMKL. The expression of CD7 antigen was as frequent as of CD117-40%. The MRD level ranged from completely negative (0%; 0.006%) to evident (1.05%). **Conclusion:** The detection of residual tumor megakaryoblasts in AML M7 using flow cytometry is a promising method for assessing the effect of therapy. Adequate measurement of MRD requires detailed immunophenotyping in the diagnosis to determine the aberrations of megacaryoblasts immunophenotype.

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OP 25

JUVENILE MYELOMONOCYTIC LEUKEMIA SINGLE CENTER EXPERIENCE

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Objective: In the 5-year follow-up of patients diagnosed with Juvenile Myelomonocytic Leukemia (JMML) in a single center; reveal treatment and survival analyzes **Methodology:** In this study, clinical and laboratory data of 12 JMML patients followed in Ankara Pediatric Hematology Hospital and Ankara City Hospital Pediatric Hematology Clinics between 2015-2020 were analyzed retrospectively. **Results:** The median age at diagnosis was 1.7 years (0.23-5.7). Monosomy 7, 4 PTPN11, 2 NRAS, 4 KRAS, 1 CBL mutations were detected in 2 of the patients. Hematopoietic stem cell transplantation was performed in 8 of the patients. Before transplantation, 7 patients had received a median of 4 cycles of azacitidine treatment. The mean time from diagnosis to transplantation was 15 months (1-29 months). The 5-year overall survival at median 15-month follow-up was 50%. **Conclusion:** With hypomethylating agents and HSCT, survival in JMML improves compared to historical control groups. However, further multicenter prospective studies are needed to prevent long-term mortality and morbidity.

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OP 26

MYSTERY OF iAMP

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Objective: Intrachromosomal amplification of chromosome 21 (iAMP21) is defined as the presence of three or more RUNX1 signals on a single chromosome, or a total of five or more RUNX1 signals per cell. It occurs in 2% of pediatric B-cell