





# **ABSTRACT BOOK**

Hilton İstanbul Bakırköy **5-7 May 2023** 

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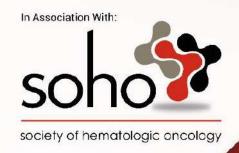
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# ORAL PRESENTATIONS

Hilton İstanbul **5-7 May** Bakırköy **2023** 

## A COMPARISON OF SERUM IMMUNOGLOBULIN LEVELS AMONG PEDIATRIC ACUTE LEUKEMIAS

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Presentation Type Oral

Abstract Category Adult Hematology Abstract Categories -> Acute Leukemias

#### Objective

Introduction: Varying degrees of immunologic defects are common features in all types of leukemia. To date humoral immunity has ben evaluated in pediatric acute lymphoblastic leukemia (ALL) patients, and no spesific pattern of immunoglobulin levels could be identified between different types of leukemia. In the literature previous studies have been evaluated the serum immunglobulin levels in ALL. In our study, we aimed to compare the initial serum immunglobulin levels between pediatric ALL and acute myeloid leukemia (AML) patients. To our knowledge; this is the first study in our country which researches serum immunoglobulin levels between pediatric ALL and AML patients.

#### Case Report

Methodology

Materials and Methods: A total of 260 patients which were diagnosed with pediatric AML and ALL, between June 2017 and March 2023, at Gaziantep University, Division of Pediatric Hematology and Oncology were enrolled to the study. Written informed consent was obtained from parents for the participation of the study. The statistical analysis method was TheShapiro-Wilk test and conducted in accordance with Sperarmanrank correlation analysis. The Chisquare test is used to determine whether there was a correlation between two independent categorical variables. The Bonferroni test is performed for multiple comparison variables. Serum immunoglobulin (Ig) G, A and M levels were measured by turbidimetric immunoassay method retrospectively.

#### Results

Results:We assesed serum Ig levels of 215 ALL and 45 AML patients, including 141 male and 119 female, with the median age of 64 months (1-219months) at time of initial diagnosis. Median concentrations of IgG, IgA and IgM at diagnosis were  $935\pm378,1\text{mg/dl}$ ,  $113,8\pm80,6\text{mg/dl}$  and  $97,6\pm57,9$  mg/dl respectively. Among 260 patients with; IgG data29 (%11,2), IgM data 10 (3,8%), IgA data 20 (%7,7) were in high expression and IgG; 20 (%7,7), IgM; 37 (%14,2) and IgA; 8 (%3,1) were in the low expression group. No statistically significant differences were noted between IgM and types of leukemia ( p = 0,52). Our data showed that IgG and IgA levels were higher in AML patients ( p=0,001). No statistically significant differences were noted between IgG, IgA and IgM levels and T or/and B celltypes of ALL ( p >0,05). Correlation analysis between levels of immunglobulins with T and/or B cell ALL patients and AML patients showed that AML patients with higher levels of IgG and IgA.

Conclusion Conclusion: Previous reports related to serum Ig concentrations at initial diagnosis in childhood leukemia are conflicting. In this study we evaluated the expression of IgG, IgM and IgA levels at the time of diagnosis in both ALL and AMLgroup of patients. We found that AML patients have higher IgG and IgA levels.

## THE USE OF GEMTUZUMAB OZOGAMICIN AS SALVAGE THERAPY IN PATIENTS WITH ACUTE MYELOID LEUKEMIA: A MONOCENTRIC REALWORLD EXPERIENCE

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1. Division of Hematology, Department of Internal Medicine, Cukurova University

Other Authors

Presentation Type Oral

Abstract Category Adult Hematology Abstract Categories -> Acute Leukemias Objective The aim of the study was to determine the role of GO in r/r AML in real life.

Case Report

Methodology

This was a retrospective, single-center, observational study. Data were analyzed from 24 patients with r/r AML, who were older than 18 years of age, treated with GO as salvage therapy for multiple r/r, and diagnosed according to the WHO 2016 Acute Leukemia Diagnostic Criteria in the Hematology Service of the Department of Internal Medicine, Faculty of Medicine, Çukurova University between 2018 and 2022

ResultsThe median follow-up was 44.3 (13-144) months. Fifteen (62.5%) of the twenty-four patients were in the intermediate-risk cytogenetics group and nine (37.5%) were in the favorable cytogenetics group. The most common adverse events included nausea/vomiting in 79.17% (n = 19) of patients, headache in 62.50% (n = 15), elevated LFTs in 37.50% (n = 9), febrile neutropenia in 25% (n = 6), and bleeding in 25% (n = 6). The most common cause of death was infection. The most common causes of mortality were septic shock, accounting for 33.3% (n = 8) of deaths, and opportunistic lung infection, accounting for 12.5% (n = 3) of deaths. Acute infusion-related toxicities associated with GO were usually transient and, in most cases, responded to the standard of care treatment. After treatment with GO, 16.6% (n = 4) of patients achieved MLFS and 37.5% (n = 9) achieved CR. The overall response rate was 54.1%. The median overall survival time of the patients was 44 months (37.8-50.2 months). Disease-free survival was 22 months (0-48.6 months). The 5-year survival rate was 33%.

Conclusion A low dose of GO improved the overall survival and disease-free survival in r/r AML patients. GO treatment had a positive safety profile in terms of toxicity.

## ACUTE PROMYELOCYTIC LEUKEMIA AND STEM CELL TRANSPLANTATION: CASE SERIES, SINGLE CENTER EXPERIENCE

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Other Authors

Presentation Type Oral

Abstract Category

Adult Hematology Abstract Categories -> Acute Leukemias

Objective
Case Report
İntroduction:

Modern treatment approach in patients with newly diagnosed acute promyelocytic leukemia (APL, AML-M3) combination therapy of all trans retinoic acid (ATRA) with arsenic trioxide (ATO), chemotherapy or both. With these treatments, 90-95% complete remission (CR) and 85-90% long-term survival is observed. In this context, hepatopoietic stem cell transplantation (HSCT) has almost ceased to play a role in the treatment of APL (in CR1). HSCT is recommended for patients CR2 or beyond after salvage therapy in relapsed/refractory APL.

Here, we will present retrospectively the patients who were previously diagnosed with APL and had HSCT in our clinic.

#### Case reports:

Case 1: A 55-year-old male patient was given ATRA+7/3 chemotherapy with the diagnosis of AML M3 in January 2018.

After 2 courses of FLAG were given to the patient who was refractory to treatment, allogeneic stem cell transplantation (ASCT) was performed with the busulfan+cyclophosphamide protocol in June 2018 from a 10/10 fullmatch brother. The patient, who was last examined in our clinic in November 2018, was evaluated as in remission. Afterwards, the patient was followed up in another center an.

Case 2: A 19-year-old male patient received ATRA+7/3 chemotherapy with the diagnosis of AML M3 in September 2008. The patient who was refractory to treatment was given 2 courses of 7/3 and 1 courses of FLAG chemotherapy. In June 2009, the patient underwent ASCT from his 9/10 brother with the busulfan+cyclophosphamide protocol.He is still in remission and his follow-up continues.

Case 3: A 43-year-old female patient was diagnosed with AML M3 in an external center in 2006. The patient, who was in remission after chemotherapy at that time, was diagnosed with relapsed AML M3 in January 2013 when he was 50 years old. The patient who received ATRA+ATO treatment and was in remission was mobilized with cyclophosphamide+G-CSF in July 2013. In September 2013, OSCT was performed with the busulfan+cyclophosphamide

protocol. The patient, who was followed up in remission until May 2017, did not follow up afterwards. In August 2018, the patient died for an unknown reason.

Case 4: A 54-year-old male patient, received ATRA+7/3 with the diagnosis of AML M3 in 2012, followed by maintenance ATRA treatment. Mitoxantrone + ATO and intrathecal treatment was given to the patient who developed relapse (bone marrow + central nervous system involvement) in March 2013. The patient who could not achieve remission received FLAG and ACE chemotherapy, respectively. In June 2013, remission was achieved and mobilization was performed with cyclophosphamide+G-CSF. In December 2013, the patient underwent OSCT with the busulfan+fludarabine protocol. In July 2014, the patient died due to disease recurrence, sepsis, lung fungal infection, and CMV reactivation.

#### Discussion and conclusion:

With moderate evidence based on retrospective studies, autologous HSCT is recommended for CR2 and allogeneic HSCT for patients with early relapse or beyond CR2, although HSCT in AML M3 is still controversial and prospective studies are needed.

Methodology Results Conclusion

## R-VENETOCLAX TREATMENT IN A B-CELL PROLYMPHOCYTIC LEUKEMIA PATIENT: A CHALLENGING CASE

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**Institution List** 

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Presentation Type Oral

Abstract Category Adult Hematology Abstract Categories -> Chronic Leukemias Objective

Case Report INTRODUCTION B cell prolymphocytic leukemia (B-PLL) is a very rare B cell neoplasm comprised of prolymphocytes, typically with involvement of the peripheral blood, bone marrow, and spleen. For the diagnosis of B-PLL these prolymphocytes should comprise more than 55 percent of the cells in the blood and bone marrow (1). B-PLL may also present as transformation from chronic lymphocytic leukemia (CLL). Here, we present a rare case of B-PLL transformation in a patient with progressive CLL treated with rituximab + venetetoclax. CASE REPORT A 62-year-old female who had been diagnosed with CLL in 2018 and treated with 6 cycles of rituximab+bendamustine, presented with massive splenomegaly and progressive lymph nodes in November 2022. At time of presentation, her complete blood count showed a lymphocyte count of 10.000/mm3 not accompanied by anemia or thrombocytopenia. Peripheral blood flow cytometry analysis confirmed the diagnosis of CLL. PET CT scan (Figure 1) showed no sign of Richter transformation. Del17p was negative. Taking into account patient history of arrhythmia, rituximab + venetoclax was planned to be initiated as 2nd line treatment. However, the treatment was postponed because of acute upper respiratory tract infection due to SARS-CoV-2. On follow up in a few days, her lymphocyte count rose from 10,000/mm3 to 200,000/mm3 accompanied by newly developing anemia (HB 8 g/dl), thrombocytopenia (90.000/mm3) and spontaneous tumor lysis syndrome (TLS) findings [high LDH (870 U/L), creatinine (1.42 mg/dL), phosphorus (5 mg/dL), uric acid (13 mg/dL), and low calcium (7.8 mg/dL)]. A repeat peripheral blood smear showed medium-sized lymphocytosis consisting of 80% prolymphocytes with moderately condensed chromatin and a single, prominent vesicular nucleolus (Figure 2). Spontaneous TLS resolved with hydration and allopurinol. The patient was considered to be at high risk for development of TLS with venetoclax. After regression of symptoms of upper respiratory tract infection, venetoclax 20 mg/day was started with appropriate hydration, rasburicase and close laboratory follow up. Prior to the 3rd dose of venetoclax, TLS related acute kidney injury (AKI) was diagnosed and venetoclax was discontinued and the patient required hemodialysis.

After two days of hemodialysis and 10 days off venetoclax, AKI completely resolved. Following two days of venetoclax, lymphocyte count decreased to 15,000/mm3 and lymph nodes and splenomegaly regressed. Yet, the patient was still at high risk for TLS. For debulking, 1 course of rituximab and high-dose corticosteroiod (1000 mg methylprednisolone) was administered. On physical examination, splenomegaly and lymphadenomegaly regressed by approximately 50% and the lymphocyte count decreased to 8000/mm3. Venetoclax was reinitiated at a dose of 10 mg/day 3 weeks after debulking. The ramp-up process was completed with no clinical and laboratory complication. DISCUSSION Venetoclax is a BCL 2 inhibitor used effectively in the treatment of many hematological malignancies. Although this drug is

routinely used in CLL, data in PLL are still scarce and are at the level of case reports due to the rarer occurrence of PLL (2,3). Debulking treatment is recommended in selected patients especially who are at high risk for TLS in order to reduce tumor burden, downgrade TLS risk, and avoid hospitalization before venetoclax treatment (4). Debulking strategies are diverse, but we chose rituximab and high-dose methylprednisolone therapy (5) taking into considering our patient's performance and cardiac status. Our patient is still on rituximab + venetoclax with clinical and laboratory response and without any new side effects. Figure 1 PET CT scan Figure 2 Peripheral blood smear REFERENCES 1-Swerdlow SH, Campo E, Pileri SA, Harris NL, Stein H, Siebert R, Advani R, Ghielmini M, Salles GA, Zelenetz AD, Jaffe ES. The 2016 revision of the World Health Organization classification of lymphoid neoplasms. Blood. 2016 May 19;127(20):2375-90. doi: 10.1182/blood-2016-01-643569. Epub 2016 Mar 15. PMID: 26980727; PMCID: PMC4874220. 2- Bell S, Lattanzio N, Braham J, Campdesuner V, Abdelal Q, Vartanov A, Pelayo M. An Unusual Case of Prolymphocytic Leukemia Transformation in a Patient With Chronic Lymphocytic Leukemia. J Investig Med High Impact Case Rep. 2021 Jan-Dec;9:2324709621990767. doi: 10.1177/2324709621990767. PMID: 33533282; PMCID: PMC7868445. 3- Chen LY, Eyre TA. Venetoclax induces deep and durable minimal residual disease-negative remission in high-risk TP53 disrupted B prolymphocytic leukaemia. Eur J Haematol. 2022 Nov;109(5):590-592. doi: 10.1111/ejh.13837. Epub 2022 Aug 5. PMID: 35871485. 4- Sharman JP, Biondo JML, Boyer M, Fischer K, Hallek M, Jiang D, Kater AP, Porro Lurà M, Wierda WG. A review of the incidence of tumor lysis syndrome in patients with chronic lymphocytic leukemia treated with venetoclax and debulking strategies. EJHaem. 2022 Apr 5;3(2):492-506. doi: 10.1002/jha2.427. PMID: 35846043; PMCID: PMC9175963. 5-Michael Y. Choi, Benjamin Heyman, Minya Pu, Emily Pittman, Karen Messer, Thomas J. Kipps; Rituximab and High-Dose Methylprednisolone Debulking Prior to Venetoclax for Patients with Relapsed or Refractory CLL. Blood 2022; 140 (Supplement 1): 12410-12411. doi: https://doi.org/10.1182/blood-2022-170897

## DIFFERENCE IN ANXIETY BETWEEN ORAL OR IV TREATMENT IN CLL PATIENTS

#### Yıldız İpek<sup>1</sup>

**Institution List** 

1. Kartal Dr Lutfi Kirdar City Hospital

Presentation Type Oral

Abstract Category Adult Hematology Abstract Categories -> Chronic Leukemias

Objective A patient diagnosed with cancer is affected both physically and emotionally. While this situation, which starts with the diagnosis process, continues during the treatment process, it continues with the response evaluation and the possibility of recurrence after the treatment. This process can be distressing for both the patient and their relatives, requiring quick decisions and wearing out. Chronic lymphocytic leukemia (CLL) is the most common type of leukemia (25%) in adults, with an annual incidence of 4/100,000. The median age at diagnosis is 65 years, and different clinics can be seen from asymptomatic patients to advanced symptomatic patients. Today, intravenous (iv) chemoimmunotherapy and oral agents as monotherapy or in combination with immunotherapy can be used in patients with treatment indications.

Case Report In our study, we aimed to evaluate the difference in anxiety between patients treated with oral agents and patients treated with iv chemotherapeutic agents.

#### Methodology

We included patients who were diagnosed in the last 5 years and needed treatment and who had not received psychiatric treatment before. Treatment plans for ibrutinib is until progression, obinutuzumab venetoclax for 1 year, rituximab venetoclax for 2 year. Patients were evaluated with Beck anxiety scoring (14 questions, scoring 0-3, the patient is filling), Hospital anxiety and depression scoring (7 questions, scoring 0-3, the patient is filling), Hamilton anxiety assessment scale (14 questions, scoring 0-4, the doctor is filling), at the start of treatment.

Results A total of 21 patients, 13 male and 8 female, were recruited. The median age at diagnosis was 64.2 (range 57-74). While 9 people were in active working life, 18 people were married. While there were 6 people who completed primary education and 9 people who completed secondary education, there were 5 people who graduated from high school. There were no patients with university education. First-line treatment was started in 10 of our patients. 11 of our patients were patients who had received at least one course of treatment before and showed relapse. 5 patients received ibrutinib (2 patients (pts) in first line), 6 patients received venetoclax+anticd20 antibody (1 patient in first line treatment, 5 pts second line combined with rituximab), 10 patients received chemoimmunotherapy (rituximab+bendamustine, 7 pts line therapy). More or less anxiety was observed in all patients who received treatment. Women were generally seen as more anxious.

Conclusion The previously treated group was less anxious, perhaps because they were experienced. While moderate anxiety scores were obtained in the group receiving oral treatment, high anxiety scores were obtained in the group receiving IV treatment. When Beck anxiety scoring, Hospital anxiety and depression scoring, and Hamilton anxiety rating scale were evaluated together, it was found that anxiety was higher in the group receiving iv treatment compared to oral treatment (p<0.05). 3 patients (3/11) in the oral treatment group and 7 patients (7/10) in the IV treatment group were receiving treatment for the first time. Having more first-line treatment patients in the arm in chemoimmunotherapy may have increased the anxiety score. The presence of moderate and high-grade anxiety in both groups suggests that a multidisciplinary approach, including psychiatry, may be important for both patients and their relatives in the treatment of cancer, which is a long and tiring process.

## RETROSPECTIVE EVALUATION OF BCR::ABL1 NEGATIVE MYELOPROLIFERATIVE NEOPLASMS (MPNS) TREATED WITH PEGYLATED INTERFERON ALPHA-2A AT A SINGLE CENTER

#### Mehmet Baysal<sup>1</sup>

**Institution List** 

1.Ali Osman Sonmez Oncology Hospital

Presentation Type Oral

Abstract Category Adult Hematology Abstract Categories -> Chronic Myeloproliferative

Diseases

#### Objective

BCR::ABL1 negative myeloproliferative neoplasms (MPNs are originated from clonal hematopoietic stem cells and share distinct pathological and molecular similarities. Interferonalfa (IFN- $\alpha$ ) have begun using in MPN patients many years ago. Historically, INF-alpha therapy has gained interest in special populations such as young patients or pregnant women. Recent discovery of Pegylated Interferon-alfa (peg-IFN- $\alpha$ 2a) as a potential disease modifying effect also drawn attention. Major obstacles regarding the widespread use peg-IFN- $\alpha$ 2a are its administration route and toxicity profile. Data on the usage of peg-IFN- $\alpha$ 2a in MPN especially in developing or low middle income countries are scare. Therefore, we aimed to evaluate outcomes of MPN patients treated with PEG-IFN- $\alpha$ -2a at single center in a developing country.

#### Case Report

#### Methodology

Data of the thirteen patients diagnosed with a BCR::ABL1 negative myeloproliferative neoplasms (MPNs) between March 2022 and 2023 were included in our analysis. Patients were all treated with peg-IFN- $\alpha$ 2a with a starting dose 135 mcg weekly. The updated ELN/IWG-MRT criteria were used to determine the therapeutic responses for ET and PV. Responses in myelofibrosis (MF) were determined using the ELN/IWG-MRT criteria. Dose modifications were made according to response or toxicities.

#### Results

Thirteen patients were included in our analysis. Six patients were female and seven were male. Median age of the patients was 56 ranging from 21 to 70. Nine patients had ET, two had PV and two had MF. Nine patients had JAK2V617F mutation, two had CALR- type-1 and two classified as triple negative MPN. Mediation duration of peg-IFN-α2a usage 6 months (4-10). In eleven ET and PV patients' normalization of blood counts and symptom improvement were noted. These eleven patients were evaluated as partial response in two MF patients one patient had partial response and one patient were unresponsive. Side effects were recorded as muscle pain in 2 patients (15.3 %), back pain in one patient (7.7 %), and rash in one (7.7 %) patient. Dose modification required in five patients.

Conclusion Challenges with administration of peg-IFN- $\alpha$ 2a and difficulties regarding the managements of side effects have long been caused barriers for the usage of peg-IFN- $\alpha$ 2a. We have shown that PEG-IFN- $\alpha$ -2a remains a viable treatment option with our limited data from a single center, albeit with a short follow-up period in a developing countr

#### FACE AND NECK CUTANEOUS T-CELL LYMPHOMATOID PAPULOSIS

Salih Sertaç Durusoy<sup>1</sup>, **Mehmet Yılmaz<sup>1</sup>** Institution List 1.Sanko University

Presentation Type Oral

Abstract Category Adult Hematology Abstract Categories -> Lymphoma

#### Case Report

An 82-year-old female patient presented with lesions involving face and neck. The patient did not have any additional disease or any medical treatment. When the the patient examined, diffuse infiltrating papulonodular and papulonecrotic lesions in the head and neck region were observed. (Figure 1A, Figure 1B) No lesion was found in any other region except the head and neck region. The biopsy result taken from the lesioned area in front of the ear was reported as T-cell lymphoma (CD45+, CD30+, CD5+, CD4+, MUM-1+, CD20-, CD38-, CD15-, CD56-, CD8-,ALK-1-,CD10-, PAX5-, CD3-). With these findings, the diagnosis of 'primary cutaneous CD30+ lymphoproliferative disease lymphomatoid papulosis type ' was made. We treated the patient with three courses of systemic B+CHP (brentuximab 1.8 mg/kg, cyclophosphamide 750 mg/m2, doxorubicin 25 mg/m2, prednisolone 100 mg, 5 days). No side effects were observed. After 3 courses of treatment, the lesions regressed almost completely.





## COEXISTANCE OF T-LYMPHOBLASTIC LYMPHOMA/LEUKEMIA AND THYMOMA

Salih Sertaç Durusoy<sup>1</sup>, Mehmet Sokucu<sup>2</sup>, İbrahim Sarı<sup>3</sup>, Levent Elbeyli<sup>4</sup>, **Mehmet Yılmaz**<sup>1</sup>

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Presentation Type Oral

Abstract Category Adult Hematology Abstract Categories -> Lymphoma

#### Objective

T-Lymphoblastic lymhoma/leukemia is malignant tumor originated from immature precursor T cell lineage. After leaving bone marrow and loclized in the thymus lymphoid precursor cells proliferate and differentiate into T-cell lineage and donated thymocytes. T-cell lymphoblastic leukemia/lymphoma characterised the malignant counterpart of these thmocytes. The distinction between T-lymphoblastic lymphoma/leukemia and thymoma may be difficult because of the immature lymphocytes associated thymoma may look like T-lymphoblastic lymphoma/leukemia cells morphologically and immunuphistochemically. Here we described coexistance of T lymphoblastic lymphoma/leukemia and thymoma which is diagnosed after the treatment of T lymphoblastic lymphoma/leukemia.

#### Case Report

A 47 year-old male referred to our deprtment with fever, weakness and shortness of breath. His complaints has started afew months ago and gradually increased. Phisical examination showed no lymph node on servical, axillary and other lymph node region. He had deep lung sounds and crackles In oncological PET-CT examination; "Intraparenchymal mass lesion starting from the anterior mediastinum and extending along the prevascular area and with a conglomerated lymph node appearance in the foreground, with a loop evaluated in favor of mediastinal LAP. Histopathological analysis of pericardial, pleural, lymph node biopsy and pleural fluid samples was diagnosed as T-lymphoblastic lymphoma. Bone marrow aspiration demonstrated no involvement of T-cell lymphoblast.

Hyper-CVAD chemoterapy protocol (cyclophosphamide, vincristine, adriaablastina, dexamethasone, cytarabine, methotraxate) was started as induction therapy. İntratechal therapy was applied with methotraxate prophlactically. After 2 cycles of hyper-CVAD chomotherapy regimen interim PET-CT was performed and analysis demonstrated; numerical, dimensional and metabolic partial regression. No pathological FDG uptake was observed in both lung parenchyma and other thoracic structures. In addition, intense hypermetabolic newly developed pleural thickening areas containing calcific areas were observed in the upper zone mediastinal section pleura in the left hemithorax (SUV Max; 10.6).. A new lymph node biopsy was required from lymph node which is the diameter 4.6x2.2 cm. Histopathologic examination of new biopsy diagnosed as B2+B3 mixed type thymoma. The Surgical resection of thymoma was performed. The patient is alive but he is out of follow up with own request.

#### Methodology

#### Results

Conclusion Coexistance of T-lymphoblastic lymphoma and thymoma is a rare and challenge clinical and pathological situation. The availibility of malign epitelial cells are hint for thymoma, differentiate from T-lymphoblastic lymphoma. The epitelial cells were not seen at initial diagnosis of the pathological speciman. The atypical lymphoctes infiltrated into lymph node, pleural effusion without bone marrow. We speculate T-lymphoblastic leukemia/lymphoma may take place coincidentally and infiltrated to thyoma.

## MICROBIOTA CHANGES IN HODGKIN AND NON-HODGKIN LYMPHOMA TREATMENT: ASSESSMENT WITH IL17 AND IL12 LEVELS

**Ekin Ece Gürer1**, Sevgi Kalayoğlu Beşışık<sup>2</sup>, Uğur Sezerman<sup>3</sup>, Zerrin Aktaş<sup>4</sup>, Fatma Savran Oğuz<sup>1</sup>, Tarık Onur Tiryaki<sup>2</sup>, Durdan Serap Kuruca<sup>5</sup>, Gülsen Günel<sup>4</sup>, Fatma Erdem<sup>6</sup>, Mustafa Oral Öncül<sup>1</sup>

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Presentation Type Oral

Abstract Category Adult Hematology Abstract Categories -> Lymphoma

#### Objective

Numerous microorganisms inhabit the human body, and "microbiota" is the collection name. The microbiota contributes to the maintenance of immune system regulation, inflammatory state, intestinal permeability, energy balance, hormone secretion, and stress management.

Hodgkin Lymphoma (HL) and Non-Hodgkin Lymphoma (NHL) treatment may cause gastrointestinal epithelial damage, and result in dysbiosis. We here aimed to document microbiota and cytokine (IL-12, IL-17) level changes during chemotherapy

#### Case Report

#### Methodology

Stool samples were taken twice, before chemotherapy and after the 3rd course. The generated OTU tables were calculated with R Statistical Computer Language version 4.04 (readr, phyloseq, microbiome, vegan, descry, and ggplot2 packages) to calculate Alpha diversity, and their graphics were created. Statistical analyzes were also performed using R Statistical Computer Language and Rstudio IDE 1.4 (tidyverse, readr, xlsx, and ggplot2 packages). Expression of IL-12 and IL-17 were evaluated by rtPCR

#### Results

30 patients enrolled in the study. After treatment, in HL, Coproccocus genus increased significantly, while Clostrdia UCG-1, Romboutsia, and Akkermensia decreased with D-Arginine, D-ornithine Metabolism, Glycosaminoglycan Degradation, Glycosphingolipid Biosynthesis Ganglio Series, Sesquiterpenoid, and Triterpenoid Biosynthesis in KEGG pathway decrease. In NHL, Nitrotoluene degradation pathway activation decreased after treatment, while Apoptosis multiple species pathway activation increased.

Conclusion The microbiota diversity is distinctive to each individual and remains relatively unchanged during adult life. It is known that some microbiota contributes to tumorigenesis: Conversely, microbiota may improve the response to chemotherapy by modulating the tumor microenvironment and may be a part of anticancer therapies. As in our study, evaluation of the gut microbiota before chemotherapy may help design treatment regimens to modify gut dysbiosis during chemotherapy and modulate the response

## DETERMINATION OF T LYMPHOCYTE SUBGROUPS IN THE BONE MARROW MICRO ENVIRONMENT IN MULTIPLE MYELOMA:

#### CAN TUMOR-DIRECTED T CELLS PLAY A ROLE IN FIGHTING CANCER?

**Ali Ünal<sup>1</sup>**, Gökçen Dinç<sup>2</sup>, Huriye Çelikzencir, Nilhan Mutlu<sup>2</sup>, Rabia Nayır<sup>1</sup>, Sinan Kutuk<sup>1</sup>, Gonca Günay<sup>1</sup>, Mustafa Yavuz Köker1

#### Aim:

Interactions between the bone marrow microenvironment and plasma cells cause serious expansion of humoral and liver immunity to cells of the immunosuppressive environment. Diffuse in T lymphocyte subgroup distribution includes a role in the pathogenesis of Multiple Myeloma (MM). NKT cells, on the other hand, exert potent anti-tumor effects in MM either through direct cytotoxicity or the release of proinflammatory cytokines, including IFN-γ.

In this regard, many immunotherapy applications are being looked at. Tumor-infiltrating T-lymphocyte (TIL) therapy as an independent, adaptive T-cell therapy.

In this situation; It is planned to determine the T lymphocyte subgroups (T8+, T4, NKT, Th1, Th2, Th17, Treg, Th22) around the bone marrow tumor in MM patients by flow cytometry method.

#### Method;

Twenty MM patients aged between 18-70 years who applied to Erciyes University Hematology Outpatient Clinic were included in the study. Ten subjects with normal bone marrow were selected as the control group. Two different studies, superficial and intracellular, were performed for flow cytometric analysis.

Among the patients diagnosed with MM and in the control group; The ratio and number of CD8+ T lymphocytes (CD3+ CD8+), NKT cells (CD3+ CD56+), Th17 (CD3+ CD8- IL-17A+) cells in the bone marrow were determined by Beckman Coulter Navios flow cytometry device. The distribution of T lymphocytes was compared according to the plasma cell ratios in the bone marrow.

#### Results:

When the bone marrow of MM patients was examined by flow cytometry; It was observed that T lymphocytes were directed to the tumor periphery according to the plasma cell density. In the Bone Marrow; T lymphocyte subgroups (T4, T8, CD3, NKT, TH17) cells were found in different proportions in patients with Plasma Cell ratio above 60%, 10-60% and below 10%.

#### Discussion:

While some T Lymphocytes (T-reg) in the bone marrow microenvironment help the development of Tumor cells, some T Lymphocytes are thought to be involved in the fight against Myeloma Cell. High levels of IL-6, TGF- $\beta$  and IL-1 $\beta$  in the bone marrow microenvironment favor Th17 cell aggregation that produces IL-17.Th17 cells secrete high levels of IL-17, which promotes MM plasma cell growth and inhibits the immune system. Thus, the data obtained will contribute to a more accurate understanding of the pathogenesis of the disease and to the creation of new immunotherapy strategies.

While some T Lymphocytes (T-reg) in the bone marrow microenvironment help the development of Tumor cells, some T Lymphocytes are thought to be involved in the fight against Myeloma Cell.

Figure 1. Plasma Cell Detection in Flow cytometry.

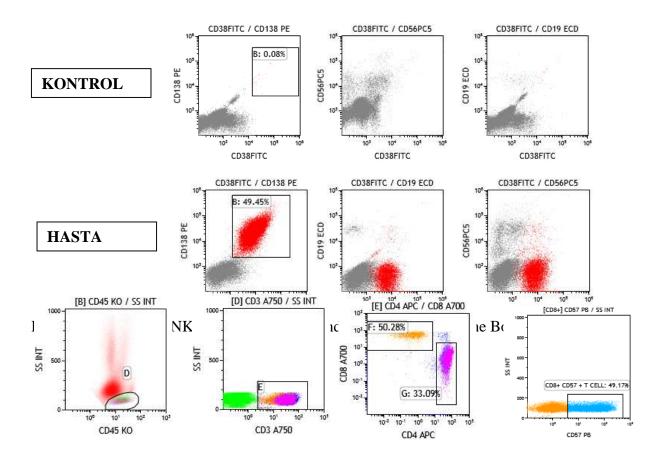
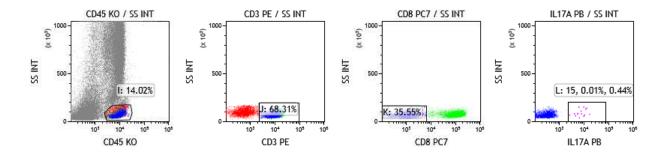


Figure 3, TH17 cells directed to the Plasma Cell region.



#### CXCL12 CHEMOKINE AND RELATIONSHIP WITH MULTIPLE MYELOM

**EKİN ECE GÜRER1**, Hayriye Şentürk Çiftçi<sup>1</sup>, Süleyman Rüştü Oğuz<sup>1</sup>, Demet Kıvanç<sup>1</sup>, Sevgi Kalayoğlu Beşişik<sup>1</sup>

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Other Authors

Presentation Type Oral

Abstract Category Adult Hematology Abstract Categories -> Myeloma

#### Objective

Studies have shown that cytokines are effective in the pathogenesis and treatment processes of Multiple Myeloma (MM). CXCR4 is a pleiotropic chemokine receptor that acts through its ligand CXCL12 to regulate various physiological processes. CXCR4-CXCL12 interaction contributes to different vital biological processes by activating various extracellular and intracellular signaling pathways. The aim of this study was to assess the potential role of CXCL12 on the pathogenesis of MM.

#### Case Report

Methodology

STRING/GeneMANIA/KEGG PATHWAY/GSEA/MSigDB for gene set enrichment analysis for gene protein and pathway interaction, TargetScan/miRDB for miRNAs targeting CXCL12, Blood eQTL Browser/ to target CXCL12 BIOS/QTLdb, GRASP and GWAS CXCL12 and miRNA region SNPs were used for disease associations.

#### Results

Five hundred and ninety-three miRNAs were identified by miRDB. As a result of examining the disease associations of SNPs from each miRNA gene region in GWAS databases, it was determined that P<7E-40 for B lymphoblastic leukemia/lymphoma. CXCL12 roles at Leukocyte chemotaxis (FDR=3.33e-08), Leukocyte migration (FDR=3.91e-08), Lymphocyte chemotaxis (FDR=0.00050). It is involved in MM disease using the chemokine signaling pathway (FDR=5.93e-08).

Conclusion It is thought that CXCL12 may play a strong role in MM. In this sense, it can also be a referral for treatment. To understand the mechanism of CXCL12 in MM disease, experimental studies with large cohorts should be carried out with the help of bioinformatics databases.

#### ADIPOSE TISSUE METABOLIC ACTIVITY IN MULTIPLE MYELOMA

#### Işıl Erdoğan Özünal<sup>1</sup>, Mehmet Tarık Tatoğlu<sup>2</sup>

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Presentation Type Oral

Abstract Category Adult Hematology Abstract Categories -> Myeloma Objective

Obesity is a predisposing factor for many cancers. Meta-analyses have shown that increased body mass index (BMI) also increases the risk of lymphoid malignancies. Here, we aimed to investigate newly diagnosed myeloma patients' subcutaneous and visceral adipose tissue FDG affinities on PET/CT and compare this with a non-cancer control group.

#### Case Report

Methodology PET/CT images of 50 multiple myeloma patients and 50 individuals without a diagnosis of any malignancy and FDG affinity on PET/CT were compared. From the mid-level of the L3 vertebra; the areas of interest with the volume-of-interest method were drawn. Subcutaneous adipose tissue (SAT) SUVmax, visceral adipose tissue (VAT) SUVmax, subcutaneous fat area (SFA), and visceral fat area (VFA) were calculated.

ResultsThe mean age was  $65.5\pm10.1$  years in the myeloma group and  $57.1\pm15.3$  years in the control group (p=0.002). The mean BMI was higher in the myeloma group (27.68±4.66 vs  $22.6\pm1.79$  p<0.001). Subcutaneous adipose tissue SUV-max and visceral adipose tissue SUV-max were higher in the myeloma group (p<0.001 and p=0.001 respectively). The total fat area was higher in the myeloma group (p<0.001). The subcutaneous fat area was higher in the myeloma group (p<0.001).

Conclusion Obesity is described by the excessively increased amount of fat mass in the human body. Although it is accepted as a predisposing condition to malignancies, the pathophysiology is still not fully understood. Our study demonstrates a higher metabolic activity in the adipose tissue in both the visceral and subcutaneous fat areas in myeloma patients.

## THE INVISIBLE DAMAGE OF THE COVID 19 PANDEMIC TO OUR APHERESIA UNIT AND THE NATIONAL ECONOMY,

Gülşah Akyol<sup>1</sup>, Mustafa Baydar<sup>1</sup>, Serpil Baysal<sup>1</sup>, Muzaffer Keklik<sup>1</sup>, Ali Ünal<sup>1</sup>

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Presentation Type Oral

Abstract Category Adult Hematology Abstract Categories -> Transfusion Medicine and Apheresis

#### Objective

Bone marrow transplantation is a method of last resort for the effective treatment of many hematological diseases and some non-hematological diseases. The most important developments in this field are; sources of hematopoietic stem cells, new applications in the priming regimen, the use of monoclonal antibodies and the application of nonmyeloablative priming regimens. These developments have significantly reduced the complications and mortality rate related to HSCT. However, sometimes patients are lost before transplantation and the cells stored for transplantation must be destroyed.

Our aim is to determine whether the number of products we destroyed at Erciyes University increased during the pandemic period.

Case Report Methodology

the stem cell products destroyed in 2015 and later were examined

#### Results

When the stem cell products destroyed in 2015 and later were examined, the majority of them were stem cells collected from patients with Multiple Myeloma (MM) and Non Hodgkin Lymphoma (NHL). 110 products were destroyed before 2020, 120 products after 2020. In other words, together with the pandemic, 10 more products were destroyed in approximately 2.5 years than in the 5 years before 2020.

A total of 230 products were destroyed. The majority were autologous stem cell products.

43 of the 120 products we destroyed were after the Covid19 pandemic, as a result of losing the patient due to Covid 19 infection. Patients who died at home or patients whose covid infection could not be excluded were not included.

TABLE 1		Stem Cell Pro	duct		
Destruction between 2	2015-				
2019		ALLOGENÍC	DLÌ	AUTOLOGOUS	Total
Diagnosis	MM	0	0	47	47
	NHL	.0	0	26	26
	HL	0	0	9	9

TABLE 2 Stem Cell Product Destructions in and after 2020 ALLOGENIC DLİ AUTOLOGOUS Total DiagnosisMM 1 NHL 0 HL 0 AML1 ALL 2 other 1 13 102 Total 

TABLE4	Total		Total number
Stem Cell Product Total	destruction due to covid	ABLE 3	Covid Caused death
ALLOGENİC	2	nm	28
DLİ	3	NHL	9
AUTOLOGOUS	38	HL	1
Total	43	AML	1
		ALL	3
	(	other	1
	7	Total	43

Conclusion The cost of freezing a stem cell collection DMSO+Bag+Collection is approximately 4800 Turkish liras. This means that as a result of the death of 43 patients due to Covid 19 infection, the cost of the damage due to the destruction of the stem cell is 4800TL \* 43 products. When the data in all transplant centers are collected, the loss of stem cells in the apheresis unit of the whole country and the damage caused to our country by wasting only stem cells will be able to be determined.

#### EVALUATION OF CYTOMEGALOVIRUS INFECTION/DISEASE FREQUENCY AND RISK FACTORS FOLLOWING ALLOGENEIC STEM CELL TRANSPLANTATION: A SINGLE CENTER EXPERIENCE

**Barış Gezici<sup>2</sup>**, Ajda Ersoy Güneş<sup>3</sup>, Nur Akad Soyer<sup>3</sup>, Güray Saydam<sup>3</sup>, Mahmut Töbü<sup>3</sup>, Fahri Sahin<sup>3</sup>, Filiz Vural<sup>3</sup>

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Presentation Type Oral

Abstract Category Adult Hematology

Abstract Categories -> Stem Cell Transplant

Objective Cytomegalovirus (CMV) infection is the most common infection after allo-SCT procedure and CMV disease still carries a relatively high risk of mortality despite advances in diagnostic and treatment methods. The aim of our study was to investigate the risk factors and frequency of CMV infection and CMV disease.

#### Methodology

Overall, 221 adult patients who underwent first allo-SCT between 2012 and 2020 at our institution, were included in this single center, retrospective, observational study. Data on patients' sociodemographic information, characteristics of the allo-SCT procedure and complications, donor characteristics, and parameters related to CMV infection/disease were collected.

#### Results

The mean follow-up period was 1067.4 days. CMV infection and CMV disease occured in 121 (54.8%) and 18 (8,1%) patients, respectively. Of those who developed CMV infection, 111 (91.7%) developed in early period and 10 (8.3%) in late period. Patient and transplant related characteristics categorized by CMV infection status are shown in Table-1. Presence of aGVHD and cGVHD were determined as risk factors for both CMV infection and CMV disease. It was observed that the risk of developing CMV infection in early period of allo-SCT increased in patients using BuCy protocol as conditioning regimen and also CMV disease involves gastrointestinal system more frequently in the presence of aGVHD or HLA-matched unrelated donor. It was found that peak CMV DNA measured during CMV infection was associated with risk of progress to CMV disease and count of leukocytes, neutrophils and lymphocytes at onset of CMV infection was inversely associated with the risk of recurrence of CMV infection.

CMV Infection Characteristics		Present (n = 121)	Absent (n = 100)	
		n (%)	n (%)	P value
Donor Characteristics	Matched related	85 (70,2)	81 (81)	0,16
	Matched unrelated	30 (24,8)	17 (17)	
	Haploidentical	6 (5)	2 (2)	
	Myeloablative	95 (78,5)	72 (72)	
Conditioning Regimen	RIC	16 (13,2)	20 (20)	0,39
	Nonmyeloablative	10 (8,3)	8 (8)	1 200,000
/ propagation and working at the	With cyclophosphamide	104 (86)	86 (86)	0,99
Conditioning Regimen	Without cyclophosphamide	17 (14)	148 (14)	
e a distriction en atomic	With ATG	14 (11,6)	9 (9)	0.00
Conditioning Regimen	Without ATG	107 (88,4)	91 (91)	0,53
History of CMV Infection Prior to Allo-	Positive	12 (9,9)	7 (7)	GB/9770
SCT	Negative	109 (90,1)	93 (93)	0,44
X 11.00 COURS	Positive	70 (57,9)	16 (16)	-0.004
Acute GVHD	Negative	51 (42,1)	84 (84)	<0,001
and the second	Positive	34 (33,7)	10 (11,1)	4 244
Chronic GVHD	Negative	67 (66,3)	80 (88,9)	<0,001

Table-1: Demographic and transplantation-related characteristics of patients according to CMV infection status

Conclusion In our study, among the parameters mentioned in the results section for CMV infection and CMV disease, risk factors were determined seperately for both. In particular, in patients with high peak CMV DNA in blood or cytopenia at the onset of CMV infection, close follow-up may be beneficial for early detection of progression to CMV disease and recurrence of CMV infection, respectively.

#### IMPACT OF EPITOPE MATCH ON STEM CELL TRANSPLANTATION

**Yeliz Öğret**<sup>1</sup>, Tarık Onur Tiryaki<sup>2</sup>, Behnoush Nasr Zanjani<sup>3</sup>, Demet Kıvanç<sup>1</sup>, Çiğdem Kekik Çınar<sup>1</sup>, İpek Yönal Hindilerden<sup>2</sup>, Sevgi Kalayoğlu Beşışık<sup>2</sup>, Meliha Nalçacı<sup>2</sup>, Deniz Sargın<sup>4</sup>, Fatma Savran Oğuz<sup>1</sup>

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Presentation Type Oral

Abstract Category Adult Hematology Abstract Categories -> Stem Cell Transplant

#### Objective

The effect of amino acid sequences in mismatched HLA patient-donor pairs on the clinical picture after hematopoietic stem cell transplantation (HSCT) is not clear yet. In this regard to understand the epitopes recognized by the immune system, databases have been created. We investigated the effect of the HLA mismatch on HSCT outcome.

#### Case Report

Methodology

Between 2011 – 2021, 22 patient and donor pairs enrolled in the study. Sequencing-based typing and the STR method were used for HLA groupings and chimerism analyses, respectively. For epitope analyses, the HLA epitope registry was used.

Donors were 9/10 matched unrelated. Most of the mismatch was in HLA A group in 13 patients followed by 4 patients in HLA B and HLA DR in 3 patients.

#### Results

Eleven patients had 0-5 epitope mismatch, 4 of them developed GVHD, and 5 survived. Five patients had 6-15 epitope mismatch, 4 of them developed GVHD, and 1 survived. In 6 patients epitope mismatch was greater than 16. Five of them developed GVHD and 4 survived. The relapse rate was not statistically significant among all groups.

The frequency of patients with one allele but 0-5 epitope mismatch was approximately one-half lower which was statistically not significant.

Conclusion We think epitope matching might be useful for identifying patients who are at high risk for serious complications such as GVHD after HSCT in HLA mismatched unrelated donors References:1.Iwasaki M et al. doi:10.3389/fimmu.2022.811733 2.Fürst D et al. doi:10.1159/000502263

## A RARE, CHALLENGING DISEASE ; LANGERHANS CELL HISTIOCYTOSIS - A SINGLE CENTER EXPERIENCE

**B**ETÜL **K**ÜBRA TÜZÜN1, Eren Aslan Davulcu<sup>5</sup>, Ajda Güneş<sup>1</sup>, Derya Demir<sup>3</sup>, Nur Soyer<sup>1</sup>, Mahmut Töbü<sup>1</sup>, Filiz Vural<sup>1</sup>, Serra Kamer<sup>4</sup>, Selen Bayraktaroğlu<sup>2</sup>, Fahri Şahin<sup>1</sup>, Güray Saydam<sup>1</sup>

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Presentation Type Oral

Abstract Category Adult Hematology Abstract Categories -> Other Diseases

#### Objective

Langerhans cell histiocytosis (LCH) is a rare, clonal disorder derived from CD1a-positive and CD207-positive immature myeloid dendritic cells , with a wide range of clinical presentations. Diagnosis of LCH is difficult and may be delayed due to its rarity and wide clinical manifestation.

#### Case Report

#### Methodology

In this study ;we aimed to retrospectively analyse our patients with LCH in terms of diagnostic procedure ,clinical course and treatment outcomes for the last 12 years.

#### Results

Twenty-nine patients who were diagnosed with LCH and received treatment between January 2010 and September 2022 at Ege University Hospital (İzmir, Türkiye) were included . Overall, 18 patients were male (62%), with a male-to-female ratio of 1.6:1. The median age at diagnosis was 36 years (range,17-62 years). The median time from disease onset to diagnosis was 3 months (range 1–180months). After a median follow-up of 38-months (range 3–153 months), all patients are alive.

At the time of diagnosis, 18 patients were classified as unifocal single system LCH (62,1%), 2 patients had pulmonary single system LCH (6,9%), 2 patients had multifocal single system (6,9%), and 9 patients had multisystem LCH (31%).

Among the 18 patients with unifocal single system or organ, 14 had unifocal bone lesions, 2 had isolated pulmonary system, 1 had ear involvement and 1 had other single lesions (tooth). The most prevalent involvement in multisystem patients was the pituitary gland (66%), followed by the bone (55%), lung (55%), and vulva (33%). Ten (34,5%) patients had risky organ involvement.

Seven patients (24,1%) had received systemic chemoterapy, 11 (37,9%) had radiotherapy and 5(17,2%)had both chemotherapy and radiotherapy as treatment. Therapies in this study were vinblastine and prednisone-based chemotherapy, cladribine monotherapy, lenalidomide, vemurafenib and radiotherapy. The ORR was 93%, including 23 patients (79,3%) classified as having CR and 5 patients (17,2%) classified as having PR. One patient (3,4%) were evaluated as SD. Three patients had reactivation of disease. One of our patients was diagnosed after 15 years, she had developed central diabetes insipitus.

Conclusion The clinical course and prognosis of LCH is diverse ranging from a spontaneously regressing single lesion to a life-threatening multisystem disease with rapid progression and death. Systemic evaluation is crucial because treatment decision depends on organ-tissue involvement. Treatment should be individualized and multi-disciplinary in order to reach good outcome. In conclusion, although adult-onset LCH is rare, it should be considered in a differential diagnosis in cases of central diabetes insipidus and spontaneus pneumothorax . Although LCH has been relatively benign disorder , it might result in complications potentially affecting vital organs.

## HEMATURIA IN ADULT HAEMOPHILIC INDIVIDUALS: IS IT THE ONLY CAUSE OF HEMOPHILIA? A SINGLE CENTER EXPERIENCE

Betül Kübra Tüzün<sup>1</sup>, Zühal Demirci<sup>1</sup>, Bahar Sevgili<sup>1</sup>, Güray Saydam<sup>1</sup>, Fahri Şahin<sup>1</sup>

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Presentation Type Oral

Abstract Category Adult Hematology Abstract Categories -> Other Diseases

#### Objective

Hemophilia is an X-linked congenital bleeding disorder characterized by bleeding into the joint, soft tissue and intramuscular bleeding in hemophilic individuals. Less often from mucous membranes bleeding, central system bleeding, retropharyngeal/retroperitoneal bleeding, hematuria, and bleeding after surgical interventions/traumatic procedures are observed. Gynecological and obstetric bleeding may occur in carriers whose factor levels are between 30-50%. In the absence of a urethral clot, hematuria is expected in the presence of secondary benign causes.

#### Case Report

Methodology

In this study, we have aimed to identify hematuria reasons in hemophilia patients who presented with macroscopic hematuria in the last decade in terms of aetiology and treatment outcomes.

#### Results

For last decade, 44 hemophilic individuals have been evaluated due to macrospopic hematuria in Ege Adult Hemophilia and Thrombosis Center. Thirty-three of these individuals (%75) have the diagnosis of hemophilia A, 11 (25 %)have hemophilia B. The median age of the patients was 49 (20 to 85) years. When these patients were classified based on severity, 24 patients (54,5%) had severe, 14(31,8%) had moderate and 6 (13,6%) had mild hemopilia. Three individuals had inhibitor to factor 8 or 9..

While none of the patients described trauma, 1 patient had chronic NSAID use due to chronic inflammatory bowel disease. When these patients were consulted by Urology, urinary stone disease were detected in 13 patients ;prostat/bladder cancers were diagnosed in 2 patients and, 2 patients had urinary tract infections. In remaining hemophilic patients, the etiology for macroscopic hematuria could not be detected. Surgical intervention was required in only 10 of the patients. When patients applied to our center with macroscopic hematuria, 34 (77.3%) of patients were recieving prophylaxis and 10 (22.7) were recieving on demand treatment.

Conclusion The incidence of macroscopic and microscopic hematuria in hemophilia patients varies between 9% and 66%. Considering the etiopathogenesis of hematuria, it may be secondary to trauma, exercise, stress, use of vitamin D derivatives, spontaneous, NSAID use, as well as the first symptom of stones and urinary malignancies in the urinary system. In vast majority of patients with hemophilia and macroscopic hematuria, this situiation generally is accepted due to natural course of the underlying hemophilia, which rarely causes the macroscopic hematuria. The life expectancy of hemophilic individuals improved with

prophylactic treatment practices and quality of life is almost similar to the normal population. As even a single episode of macroscopic hematuria is considered a significant risk factor for urologic disease, macroscopic hematuria requires the involvement of several specialists to investigate for detection of underlying disorder. Patients should be questioned in terms of hematuria at each follow-up and encouraged to apply to the outpatient clinic for hematuria that develops after conditions such as exercise and stress. Thus, it will facilitate the detection and management of preventable etiological factors

### IS FERRIC CARBOXYMALTOSE A SAFER OPTION COMPARED TO IRON SUCROSE?

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Presentation Type Oral

Abstract Category Adult Hematology Abstract Categories -> Other Diseases

#### Objective

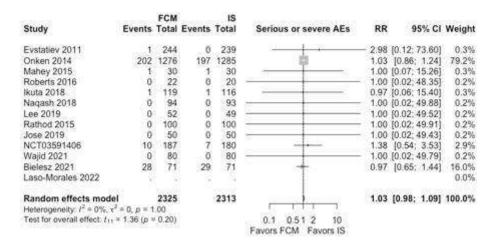
This meta-analysis aims to compare the safety and tolerability of ferric carboxymaltose (FCM) and iron sucrose (IS) in the treatment of iron deficiency anemia (IDA) in adult patients.

#### Methodology

A systematic literature search was performed through Ovid MEDLINE, EMBASE, Web of Science, Pubmed and The Cochrane Central Register of Controlled Trials (Cochrane CENTRAL), all from inception to June 8, 2022 to identify randomized controlled trials comparing FCM and IS in adult patients with IDA. The primary outcomes of interest were hypersensitivity reactions. Two independent reviewers performed the literature search. Two reviewers independently extracted all available prespecified relevant data in accordance with the International Prospective Register of Systematic Reviews protocol (registration number: CRD42022337858). Summary effect measures of the primary outcomes were obtained by pooling the risk ratio data with an inverse variance—weighted random-effects model. The overall risk of bias assessment was conducted by using the Cochrane Risk of Bias 2 tool including randomisation process, bias due to deviations from intended interventions, bias due to missing outcome data, bias in measurement of the outcome, and bias in selection of the reported result domains. Any discrepancies in extracted data were resolved by discussion.

#### Results

Our analysis included 13 RCTs presented in 19 reports with a total of 4638 participants. Notably, FCM was associated with a higher incidence of hypersensitivity reactions than IS, with a pooled risk ratio of 2.97 (95% CI: 1.72 to 5.14, p < 0.01). The pooled analysis indicated that FCM did not confer a lower risk of serious or severe adverse events (risk ratio: 1.03, 95% CI: 0.98 to 1.09, p = 0.20) or any adverse events (risk ratio: 0.97, 95% CI: 0.62 to 1.51, p = 0.86) compared to IS. The risk of hypophosphatemia (risk ratio: 2.84, 95% CI: 0.62 to 13.00, p = 0.14) and withdrawal from the trial due to adverse events (risk ratio: 1.62, 95% CI: 0.76 to 3.47, p = 0.17) were higher in the FCM arm, although the differences were not statistically significant.



Study	Events	FCM Total	Events	IS Total	Hypersensitivity reactions	RR	95% CI	Weight
Evstatiev 2011	9	1000		30 T. 55		4.41	[0.96; 20.19]	26.7%
Onken 2014	9	1276	2	1285	- 01	4.53	[0.98; 20.93]	26.4%
Mahey 2015	0	29	0	29		1.00	[0.02; 48.74]	4.1%
Roberts 2016	0	22	0	20		1.00	[0.02; 48,35]	
Ikuta 2018	1		- 6	- 1				0.0%
Nagash 2018	.0	94	0	93			[0.02; 49.88]	
Lee 2019	0	52		49			[0.02; 49.52]	4.1%
Rathod 2015	0	100	0	100	· · · · · · · · · · · · · · · · · · ·	1.00	[0.02; 49.91]	4.0%
Jose 2019	0	50	0	50	-+	1.00	[0.02; 49.43]	4.1%
NCT03591406	8	187	- 1	180	- 10	- 7.70	[0.97; 60.95]	14.4%
Waild 2021	0	80	0	80		1.00	[0.02; 49.79]	4.0%
Bielesz 2021	000	*****		0.000	1 1		15 P. 22 11 11 15 12 15	0.0%
Laso-Morales 2022	0	51	0	50		1.00	[0.02; 49.44]	4.1%
Random effects model Heterogeneity: $I^2 = 0\%$ , $\tau^2$		2185		2175		2.97	[1.72; 5.14]	100.0%
Test for overall effect: t10					0.1 0.5 1 2 10 Favors FCM Favors IS			

Conclusion Our meta-analysis suggests that IS is a safer alternative to FCM in terms of hypersensitivity reactions, while having similar effects on serious or severe adverse events, any adverse events, risk of hypophosphatemia, or withdrawal rate due to drug-related adverse events for treating IDA in adults. These findings have significant clinical implications for the management of IDA.

## THE ROLE OF 18F- FDG PET/CT SCAN IN ADULT LANGERHANS CELL HISTIOCYTOSIS: A SINGLE-CENTER EXPERIENCE

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Presentation Type Oral

Abstract Category Adult Hematology Abstract Categories -> Other Diseases

#### Objective

Langerhans cell histiocytosis (LCH) is the clonal expansion of myeloid precursors with differentiation to CD1a+/CD207+cells. The data regarding LCH in adults is scarce. A comprehensive evaluation should be performed to assess the involved system's number and sites. Based on this issue, we aimed to outline the potential role of 18F-fluorodeoxyglucose positron emission tomography-computed tomography (18F-FDG PET/CT scan) in LCH by integrating glycometabolic activity and anatomical images.

#### Case Report

#### Methodology

Patients pathologically diagnosed with LCH, who underwent the 18F-FDG PET/CT scan between 1997 and 2022, were enrolled in the study. Data were collected electronically from the hospital's automated system. All statistical analyses were performed using the SPSS 25.0 package program. Data are presented as mean  $\pm$  standard deviation (SD), median  $\pm$  interquartile range (IQR), or frequency (%).

#### Results

43 patients' data were reviewed. The mean age at diagnosis was 31 years (2-63 years) with a male-to-female predominance of 2.9:1. The mean age of male and female patients separately was 29 and 37 years, respectively. A total of 34 patients underwent PET/CT scans. Seven patients' PET/CT scan was FDG negative. Nine patients have more than 10 FDG-positive lesions. Two patients had multiple lung lesions. The most commonly encountered lesions were bone lesions (82%). The mean SUVmax among involved organs was given in

Table 1.

Involved Tissue	Number of patients	Mean SUVmax	Median SUVmax	Min-Max SUVmax
Bone	28	7.35	5.9	0-24.7
Lung	6	5.33	2	1.1-16
Lymph Node	6	5.56	3.9	1.4-14
Brain	2	36.35	36.35	34.7-38
Skin	5	10.44	11.4	2.7-14.4
Thyroid	1	16	16	16

Conclusion Our study size is relatively great for adult LCH. 18F-FDG-PET/CT imaging as providing a whole-body image in one scan may point to risk organ involvement and/also treatment modality decisions. For response monitoring, we have to depict that our study is not prospectively scheduled for this data and it is early to take messages from SUVmax ratios.

## EVALUATION OF TREATMENT RESPONSES OF CHILDREN DIAGNOSED WITH HEMANGIOMA, SINGLE CENTER EXPERIENCE

Dilvin Çelik Ateş<sup>1</sup>, Fatma Betül Çakır<sup>1</sup>

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Presentation Type Oral

Abstract Category Adult Hematology Abstract Categories -> Other Diseases

#### Objective

Hemangiomas are the most common benign tumors of childhood, arising from proliferation of vascular endothelial cells. In this study, we aimed to evaluate the treatment responses and drug side effects of our patients who were treated for hemangioma.

#### Case Report

#### Methodology

The files of 77 patients with hemangioma who were followed up in our center in the last 6 months were retrospectively analyzed. 58 patients who received treatment were included in the study. Age, gender, examination findings, cardiological evaluations, ultrasonographic results, medications and side effects of the patients were examined.

#### Results

Of the 58 patients included in the study, 45 were female and 13 were male. The mean age of our patients was 8.8 months (1 month-100 months). Forty one of the patients had a single lesion, 14 had multiple lesions, and 3 had extensive lesion with segmentation. Propranolol treatment was started at a dose of 0.5 mg/kg and increased to 2 mg/kg at intervals of 5-7 days. Of these patients, 39 are under follow-up with systemic treatment with propranolol and 19 with local treatment with timolol maleate. The mean follow-up period of the patients using propranolol was 7.7 months (2-24 months). While 25 (65%) of 39 patients using propranolol had shrinkage and discoloration, 12 (30%) had almost complete healing, while 2 (5%) patients did not respond well to treatment. Local treatment was preferred in patients with small lesions. The lesion shrank in 12 (63%) of 19 patients who received local treatment with timolol maleate, while the treatment did not help in 7 (37%) patients.

Conclusion Good results were obtained with propranolol treatments in patients with infantile hemangioma. While side effects such as hypoglycemia, hypotension, and bradycardia that can be seen under treatment were not observed, sleep disturbance and restlessness complaints developed in 3 patients. To reduce these complaints, the evening treatment dose can be taken earlier. Systemic treatment resulted better than local treatment.

## EFFICACY AND SAFETY OF SINGLE AGENT BLINATUMOMAB AS SALVAGE THERAPY IN RELAPSED/REFRACTORY B CELL ACUTE LYMPHOBLASTIC LEUKAEMIA: REAL LIFE EXPERIENCE

#### İbrahim Halil Açar, Birol Güvenç<sup>a</sup>

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#### **ABSTRACT**

Background and objectives: Despite improved survival rates in adult B-ALL, many challenges remain in the management of patients with relapsed/refractory (r/r) B-ALL. Targeted therapies have been developed to overcome this challenge in r/r B-ALL. Blinatumomab, a bi-specific anti-CD19/CD3 antibody, has demonstrated promising efficacy in the treatment of r/r B-ALL patients. This study aimed to evaluate the outcomes of blinatumomab treatment in adult patients with r/r B-ALL at a single center.

Material and methods: In this retrospective, single-center, observational study, we included 34 adult patients with r/r B-ALL between 2019 and 2021 treated with blinatumomab. Treatment response, overall survival (OS), minimal residual disease (MRD), and feasibility of allogeneic hematopoietic stem cell transplantation (allo-HSCT) were assessed. Prognostic factors associated with treatment response and survival were also identified.

Results: Patients received an average of 1 (1-3) cycles of blinatumomab treatment. No adverse events occurred in 79.4% of patients (n=27), while 20.6% (n=7) experienced various adverse events. Among these, 11.8% (n=4) were cytokine release syndrome (CRS), 5.9% (n=2) neurotoxicity (NT), and 2.9% (n=1) neutropenia. The overall response rate was 64.7% (n=22), with a complete response rate of 44.1% (n=15). MRD negativity was achieved in 44.1% (n=15) of patients. Allo-HSCT was performed in 50% (n=17) of patients. Median follow-up time after blinatumomab treatment was 5.5 months (range:1-40 months), median OS was 10 months (95% CI:3-17 months) and 3-year survival rate was 36%. Factors associated with increased mortality included hepatosplenomegaly, lymphadenopathy, high lactate dehydrogenase levels, high peripheral blood blast rate, and previous central nervous system involvement. Allo-HSCT after blinatumomab treatment was a factor associated with reduced mortality risk.

Conclusion: Single agent blinatumomab is a safe and effective treatment as salvage therapy in r/r B-ALL patients with poor prognostic features. Our findings support the effectiveness and safety of blinatumomab in adult patients with r/r B-ALL in a single-center real-world setting. The identification of prognostic factors can help guide treatment decisions and optimize patient outcomes.

Keywords: blinatumomab, acute lymphoblastic leukemia, relapsed, refractory, single-center experience

## CHARACTERISTICS AND OUTCOMES OF MYELODYSPLASTIC SYNDROME PATIENTS TREATED WITH DARBEPOETIN ALFA FOR ANEMIA IN TURKEY: A MULTICENTER RETROSPECTIVE STUDY

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Background: Myelodysplastic syndrome (MDS) is a clonal, heterogeneous stem cell disease, usually seen in advanced age, with cytopenias as a result of ineffective hematopoiesis. Anemia is a common complication in MDS patients, significantly impacting the quality of life and increasing morbidity. Darbepoetin alpha (DA) is an erythropoiesis-stimulating agent that has shown promising results in treating anemia in MDS patients

Aim of Study: This study aims to describe the demographic, clinical, and laboratory characteristics of MDS patients in Turkey and to evaluate the efficacy, safety, and optimal dosing strategies of DAin the management of anemia in this population.

Methodology: A retrospective multicenter observational cohort study was conducted, focusing on data collected between 2015 and 2021 from eight different centers in Turkey. Data from very-low, low, or intermediate-risk according to IPSS-R score and receiving DA treatment 226 MDS patients were collected and analyzed.

Results: DA effectively managed anemia in MDS patients, reducing the need for blood transfusions, with a significant decrease in transfusion units in 4th, 8th, and 12th months of treatment (p<0.05). Headache 10.1% (n=23), hypertension 6.6% (n=15), thromboembolic event 3.6% (n=8) and peripheral edema 4% (n=9) were the main adverse events after darbopoetin use. The adverse event profile observed was consistent with previous studies evaluating the safety of DA. The five-year survival rate was determined as 29.6% and 5-year survival rate observed were comparable to other studies evaluating the survival outcomes of MDS patients receiving ESAs, including DA.

Conclusion: This study provides valuable insights into the demographic, clinical, and laboratory characteristics of MDS patients in Turkey, as well as the efficacy and safety of DA treatment for anemia. DA is an effective and safe treatment option to correct anemia in non-high-risk MDS patients.

Keywords: myelodysplastic syndrome; darbopoetin alfa;

## INVESTIGATING FLT3 MUTATIONS IN ACUTE MYELOID LEUKEMIA: A SINGLE-CENTER REAL-WORLD DATA STUDY ON PATIENT OUTCOMES AND TREATMENT STRATEGIES

**İbrahim Halil Acar<sup>1</sup>**, Hüseyin Derya Dincyurek<sup>2</sup>, Özge Sönmezler<sup>3</sup>, Şule Menziletoğlu Yıldız<sup>4</sup>, Atıl Bisgin<sup>3</sup>, Birol Güvenç<sup>1</sup>

<sup>1</sup>Cukurova University, Faculty of Medicine, Hematology Department, Adana, Turkey

Background and Objective: Acute Myeloid Leukemia (AML) is a complex hematological malignancy with considerable genetic heterogeneity. Fms-like tyrosine kinase 3 (FLT3) mutations are associated with poor prognosis and occur in nearly 30% of AML cases. This study delves into the prevalence of FLT3 mutations, their impact on clinical outcomes, and the efficacy of various treatment approaches in a cohort of AML patients.

Materials and Methods: We examined 157 de novo non-acute promyelocytic leukemia AML patients aged 20-95 years, screening for FLT3-ITD and FLT3-TKD mutations. We tailored chemotherapy based on age, ECOG performance status, and FLT3 mutation presence. IBM SPSS Statistics for Windows 26.0 was used for statistical analyses.

Results: Our research revealed that 27.3% of patients harbored FLT3 mutations, with 65% FLT3-ITD and 35% FLT3-TKD mutations. Those with FLT3 mutations exhibited higher mortality rates compared to patients without mutations. Age, FLT3 mutation status, and relapsed/refractory disease emerged as independent risk factors for mortality. Patients treated with midostaurin faced a lower mortality risk than those administered sorafenib.

Conclusion: This study underscores the significance of FLT3 mutations in AML, their influence on clinical outcomes, and the advantages of targeted therapies. Our findings stress the urgency for further investigation aimed at enhancing the prognosis for AML patients with FLT3 mutations.

Keywords: acute myeloid leukemia; FLT3 mutation; sorafenib; midostaurin

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<sup>&</sup>lt;sup>4</sup>Cukurova University Department of Medical Services and Technics, Vocational School of Health Services, Adana, Turkey Abstract







# POSTER PRESENTATIONS

Hilton İstanbul **5-7 May** Bakırköy **2023** 

## A SUCCESSFUL TREATMENT OF RELAPSED REFRACTORY MDS PATIENT WHO IS FOLLOWED UNDER HEMODIALYSIS

Bahar Sevgili<sup>1</sup>, Tural Pashayev<sup>2</sup>, Nur Soyer<sup>1</sup>, Filiz Vural<sup>1</sup>, Güray Saydam<sup>1</sup>

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Presentation Type Poster

Abstract Category Adult Hematology Abstract Categories -> Acute Leukemias Case Report OBJECTIVE: Relapsed refractory (R/R) myelodysplastic syndromes (MDS) have poor outcomes who are ineligible for allogeneic stem cell transplantation. Recently, BCL-2 inhibitor venetoclax in combination with hypomethlyating agents (HMAs) has been showed promising results comparing to HMAs alone. However, a standardized therapy has not been defined for MDS patients who are under hemodialysis. We aimed to present a case report about a successful treatment of R/R MDS patient azacytidine combined with venetoclax. CASE: A 48-year-old female patient was admitted to Ege University Department of Hematology Clinic in complaint with symptomatic anemia refractory to erythropoietin stimulating agents (ESAs). She complained exercise intolerance, however she denied any B symptoms, lymphadenopathy etc. Her vital signs and physical examination were non-significant. Laboratory findings were found as normochrome normocytic anemia (hemoglobin: 5,6 g/dl, platelets: 114x 10^6 / mcl) and mild thrombocytopenia. Her erythropoietin, ferritin, B12 and folic acid levels were normal. The bone marrow biopsy was resulted as MDS with excess blast (EB-1) %6-7 of cells. Her karyotype and cytogenetic analysis were normal; on the other hand, IPSS level was high. After 6 cycles of standard dose azacytidine, bone marrow biopsy resulted MDS-EB-1 with %7-8 of blast cells. 2nd line she planned to be treated by 4 cycles of decytabine, but her transfusion dependency worsened during treatment, so we needed to reduce dose by %20. After 4th cycles of decytabine, bone marrow blast involvement persisted on %6. As third line therapy, we performed azacytidine 75 mg/m2 in combination with venetoclax 200 mg/d D1-14 for 6 cycles. Since transfusion dependency persisted on in the first 2 cycles, venetoclax dose was reduced to 100 mg/d for 14 days. She did not need any red blood cell transfusion after 3rd cycle. During treatment, no tumor lysis syndrome (TLS) was detected. After 6th cycle of treatment, bone marrow biopsy was resulted with <%1 blast cells and reduction of dysplastic changes. DISCUSSION: High risk MDS patients have poor outcomes unless Allogeneic SCT is performed. Oral Bcl-2 inhibitors have promising results in high risk MDS patients, on the other hand there is not any data on its use of maintenance hemodialysis patients. Our patient was ineligible for Allogeneic HSCT despite her young age and good performence status. We were able to achieve hematologic response while we did not detect any side effects of HMA and venetoclax combination including TLS

## THE TIP OF THE ICEBERG: VAGINAL BLEEDING AND GRANULOCYTIC SARCOMA OF THE UTERUS

**Serhat Çelik**<sup>1</sup>, Zeynep Tuğba Güven2, Tuğba Yıldırım3, Leylagül Kaynar4, Bülent Eser4, Mustafa Çetin4, Ali Ünal4

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Presentation Type Poster

Abstract Category Adult Hematology Abstract Categories -> Acute Leukemias

Objective Granulocytic sarcoma (GS) is a rare tumor composed of immature granulocytes. It most commonly occurs during the course of acute myelocytic leukemia (AML), and sometimes it can be the first finding. While it can be seen in almost every anatomical region, it most commonly affects bone, skin and lymph nodes. It is rarely seen in the female genital system in the literature.

Case Report A 33-year-old female patient was admitted to the emergency department with complaints of abdominal pain and vaginal bleeding. WBC:  $116x103/\mu L$ , myeloid blastic cells were detected in the peripheral blood smear. The patient was consulted to the obstetrics and gynecology service. A mass was detected in the uterus and biopsy was taken. Bone marrow aspiration and biopsy revealed 70% myeloid blasts, and 7/3 chemotherapy was started. Uterine biopsy was reported as granulocytic sarcoma. The patient was given 3 cycles of high-dose ARA-C treatment. Allogeneic bone marrow transplantation was planned.

#### Methodology

#### Results

GS can appear in different areas of the body, including bone, soft tissues, lymph nodes, breast, and skin; however, it is very rare in the female genital tract. The mechanism of myeloid blast infiltration in the endometrium is still not clearly understood. Inv(16) and t (8; 21) karyotypes and CD56 positivity. However, the specific morphological, surface markers, cytogenetic, or molecular subtype of AML is in no way clearly associated with an affinity for uterine tissue.

Conclusion While GS is usually seen in bone, soft tissues, lymph nodes and skin, it is rarely seen in the female genital system. In addition, it can be revealed during the course of AML or it can be the first finding. As in our patient, uterine GS should be kept in mind in patients with acute leukosis presenting with vaginal bleeding.

## CHRONIC HEPATITIS B INFECTION MANAGEMENT IN A LONG TERM FOLLOWED OF CHRONIC LYMPHOCYTIC LEUKEMIA TREATED WITH MULTIPLE LINES OF CHEMOIMMUNOTHERAPIES INCLUDING IBRUTINIB

**Bahar Sevgili**<sup>1</sup>, Ajda Güneş<sup>1</sup>, Nur Soyer<sup>1</sup>, Fahri Şahin<sup>1</sup>, Nevin Oruç<sup>2</sup>, Güray Saydam<sup>1</sup>

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Presentation Type Poster

Abstract Category Adult Hematology Abstract Categories -> Chronic Leukemias

#### Objective

Case Report Hepatitis B reactivation may occur in B cell dysfunction, especially those with previously met with HBsAg despite priorly acquired immunization. Ibrutinib is a bruton tyrosine kinase inhibitor (BTKi) which regulates B cell signaling, resulted with B cell maturation. HBV reactivation under tyrosine kinase inhibitors is still a dilemma whereas little knowledge we have, to protect any acute HBV reactivation. Here, we aimed to present a case report of chronic HBV reactivation under ibrutinib treatment. Case: A 75-year-old male patient previously diagnosed with RAI Stage 2 CLL and naturally immunized HBV was admitted to our clinic. In May 2017, rituximab+ chlorambucil (R-Cl) protocol was administered under tenofovir disoproxil fumarate prophylaxis. After 6 cycles of chemotherapy, he was followed up under remission. No HBV reactivation occurred during prophylaxis and treatment-free interval. After 3 years of last chemotherapy, in September 2020 he had weight loss, rapidly growing lymphadenopathies and anemia. Due to relatively low performance, ibrutinib 420 mg/d was administered. After the 9th cycle of ibrutinib, elevated liver enzymes were detected. His HBV DNA level was increased, so entecavir was administered but after 3rd cycle, his HBV DNA level did not decrease enough, so his treatment was switched to tenofovir alafenamide fumarate (TAF). After 3 cycles of TAF, he had been under follow up with chronic inactive HBV and CLL. Discussion: In our knowledge, ibrutinib has a potential role on B cell signaling, resulted as alteration of cellular immunity. On the other hand, ibrutinib also make an increase of B cell maturation, immunomodulator of T cells which are also considered as amendatory for immune system. Primary or secondary prophylaxis for HBV, especially for carriers before initiation of ibrutinib is still controversial according to local and international guidelines. Individualized approach and risk assessment is still considered as best option for prophylaxis for HBV.

## CASE REPORT WITH CHRONIC LYMPHOCYTIC LEUKEMİA AND PRIMARY IMMUNE FAILURE COMBINED

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Presentation Type Oral

Abstract Category Adult Hematology Abstract Categories -> Chronic Leukemias

#### Objective

Case Report Introduction and purpose: Primary immunodeficiency (PID) diseases are inherited defects of the innate and adaptive arms of the immune system that lead to increased incidence, frequency or severity of infections and/or immune dysregulation. Again, primary immune deficiencies may progress with an increase in malignancies, especially hematological ones. While the development of hematological malignancies such as chronic lymphocytic leukemia (CLL) in patients with primary immunodeficiency is not fully explained, publications have shown that hypogammaglobulinemia may occur even 3 years before the diagnosis of CLL. In this direction, we presented this case with CLL and PID coexistence. Case: A 49-year-old male patient presented with the complaint of swelling in the lymph nodes. In his history, it was learned that he had frequent respiratory tract infections since childhood and had a history of recurrent skin infections. He had high blood values for 8 years. In the physical examination of the patient who did not describe any B symptoms, bilateral cervical 1 cm, right inguinal 1.5 cm mobile, painless lymph nodes were detected. In the laboratory evaluation, leukocytes: 358,000/ μL, lymphocytes: 291.000/μL, hemoglobin: 9.1 gr/dl, platelets: 266,000/ μL, IgG: 6.98 (7-16) gr/l, IgM: 0.04, IgA: 0.66 (0.7-4) was detected. The patient diagnosed with chronic lymphocytic leukemia; The immunology department was consulted. Immunoglobulin G: 5.1, CD8 (T-Suppressor) 1.4% (15.0 - 46.0%), NK-Lymphocyte (CD3-CD16+CD56+) 1.3% (4.0 - 26.0), T-Lymphocyte (CD3+) 2.5% (62.0 – 87.0) and tetanus antibody titer below 0.1, the patient was diagnosed with simultaneous PID by consulting with immunology considering the clinical findings. Venetoclax and rituximab regimen was started because it was a term treatment. No lymphadenopathy was detected in the imaging studies at the 12th month of venetoclax treatment. In the complete blood count, leukocytes: 4.760/ µL lymphocytes: 2.870/ µL hemoglobin: 14.1 gr/dl plates: 244,000/ uL were detected. No clonal B cells were detected in flow cytometry. After 4 doses of IVIG, IgG level was found to be 800 mg/dL. In the follow-up of the patient who received IVIG treatment for 1 year, lobar pneumonia diagnosed once with clinical, laboratory and radiological findings was detected, and complete recovery was observed with nonspecific antibiotic treatment. He did not need prophylactic antibiotics in his followups. Conclusion: This patient is presented because he was diagnosed with CLL and concurrent Primary Immunodeficiency. As CLL can develop in the process of PID, PID can also develop in the process of CLL.

It is important that this group of patients should be evaluated simultaneously in terms of immunology and that IVIG treatment should be added to patients with a history of frequent infections with PID. If there is concomitant PID in the chemotherapy treatment selection process in CLL patients, the treatment regimen should be chosen accordingly. Keywords: chronic lymphocytic leukemia, Primary Immunodeficiency, immunglobuline Methodology

### HEMOPHILIA AND GASTROINTESTINAL BLEEDING, BEYOND HEMARTHROSIS

Bahar Sevgili<sup>1</sup>, Zuhal Demirci<sup>1</sup>, Fatih Tekin<sup>2</sup>, Güray Saydam<sup>1</sup>, Fahri Şahin<sup>1</sup>

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Presentation Type Poster

Abstract Category Adult Hematology Abstract Categories -> Coagulation Diseases

#### Objective

Gastrointestinal bleeding (GIB) is mostly seen in primary hemostasis deficiencies. Though patients living with Hemophilia (PLwH) A/B, mainly characterized with secondary and late onset bleeding disorders, GIB management might be complicated in PLwH as previously defined risk factors for GIB might also accompany. We aimed to retrospectively evaluate GIB events in PLwH A/B in Ege Adult Hemophilia and Thrombosis Center.

#### Case Report

Methodology We included PLwH A/B with previous history or preliminary diagnosis of GIB occurred between January 2021- December 2022. Age, sex, type of hemophilia, previous treatment for hemophilia, prophylaxis compliance if taken, existence of factor inhibitor, concomitant use of nonsteroid antiinflammatory drugs (NSAIDs), indication for endoscopy and whether performed detected diagnosis were recorded. Definitive statistical analysis was performed.

ResultsTotally 26 male PLwH (21 Hemophilia A, 5 Hemophilia B) were included in our study. Median age was 43 (20-67 years old). %50 of cases were severe hemophilia (13) whereas %30,8 of moderate (8) and %12,2 of them were mild hemophilia. (5) %11,5 of cases were detected factor inhibitor. Median targeted joint was detected 1 (0-8) Indications for gastrointestinal endoscopy were bleeding (%69,2), abdominal pain (%19,2), unexplained anemia %7,7. 18 of 26 patients had opportunity for endoscopy. Patients who were performed urgent endoscopy had missing data for pathological analysis. But patients who had been obtained biopsy, pathological analysis were reported as 6 with peptic ulcer, 4 gastritis, 2 colon polyp, 1 colon adenocancer, 2 with colic ulcer, 1 meckel diverticulitis, 5/7 patients with Helicobacter pylori (Hp) career. 8 of patients were referred to surgery according to gastrointestinal pathologic diagnosis (5 with complicated hemorroid, 2 with colon cancer, 1 meckel diverticulitis) 12 (%46,2) of patients defined of NSAIDs whereas 8 (%30,8) of patients were not well questioned for NSAIDs.

12 of patients had recurrent GIB. We reported only 1 death but other than GIB, neutropenic fever after chemotherapy for colon adenocancer.

Conclusion PLwH might also be detected in GIB and should not be attributed only to hemophilia. Optimal preventive managements (treatment of Hp, constipation, comorbidities such as colitis, diverticulosis etc.), avoidance of drugs that may cause bleeding and close monitoring for obvious or occult GIB is essential for management of GIB of PLwH. Also, optimal timing for endoscopy and multidisciplinary approach for GIB is highly recommended for optimal management.

## COVID VACCINATION ASSOCIATED ACQUIRED THROMBOTIC THROMBOCYTOPENIC PURPURA

**Ruveyda Silay**<sup>1</sup>, Nigar Taghiyeva<sup>1</sup>, Simge Erdem<sup>1</sup>, Mustafa Nuri Yenerel<sup>1</sup> Institution List
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Presentation Type Poster

Abstract Category Adult Hematology Abstract Categories -> Coagulation Diseases

Objective Case Report

Immune and autoimmune vaccination-related adverse events can be seen after COVID-19 vaccines. We present a covid-19 vaccination-associated acquired TTP in this abstract. A 40-year-old woman with no known history of the disease was referred to a community hospital due to weakness, chills, and macroscopic hematuria after the first dose of the Biontech vaccine. The patient was diagnosed with acquired thrombotic thrombocytopenia and easily treated with, plasmapheresis, oral prednisolone, and rituximab treatment. The Covid 19 pandemic has caused millions of deaths all over the world. The most important way to protect against the pandemic is vaccination. Vaccines are known to have some serious side effects, albeit rare. However, these side effects are negligible compared to the fatal impact of COVID-19 infection and vaccination should be encouraged.

Methodology Results Conclusion

## A RARE BLEEDING DIATHESIS WITH SUBACCUTE SPLENIC HEMATOMA: PAI-1 DEFICIENCY

#### Berrin Balık Aydın<sup>1</sup>

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Presentation Type Poster

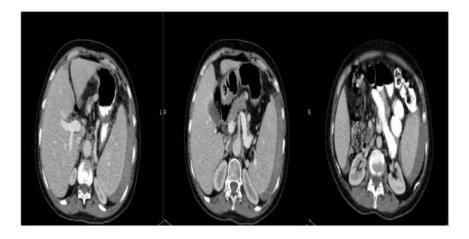
Abstract Category Adult Hematology Abstract Categories -> Coagulation Diseases Objective

INTRODUCTION: In hematology practice, we encounter patients who present with various mild to moderate bleeding symptoms, but no hemostatic abnormality can be found. Few patients have been reported in the literature regarding plasminogen activator inhibitor 1 deficiency, which is one of the hyperfibrinolytic bleeding disorders. Plasminogen activator inhibitor Type 1 (PAI-1) is a serine protease inhibitor. Tissue

plasminogen activator (tPA) and urokinase (uPA) inhibit fibrinolysis as a result. A mild to moderate bleeding phenotype in terms of bleeding symptoms and bleeding score is indistinguishable from diagnoses such as platelet dysfunction, coagulation factor deficiencies or von Willebrand factor (VWF) deficiency. Since the diagnosis of plasminogen activator inhibitor 1 deficiency is a treatment that can be easily administered like treatment with antifibrinolytic agents, it will improve patient care effectively and have a positive effect on the psychology of the physician and the patient.

Case Report A 55-year-old female patient was admitted to the hospital in March 2018 with abdominal pain radiating to the shoulder. He had a tah+bso operation due to menometrorrhagia in his history. There was no feature in his family history. Abdominal ultrasonography revealed hepatosplenomegaly (16 cm spleen and 16 cm liver) and a hypodense area consistent with a subacute hematoma of approximately 13-14 cm in length and 2 cm in thickness in the subcapsular localization of the spleen and free fluid in the douglasta and perihepatic region. Platelets were sufficient and normal in the peripheral smear. The patient underwent 2 units of ES replacement. A coagulation panel was studied in terms of bleeding diathesis due to the history of menometrorrhagia in his medical history. Prothrombin time (PT), activated partial thromboplastin time (PTT), Von Willebrand Factor antigen, ristocetin cofactor activity, factor VIII level, factor XIII level, platelet function tests, PAI-1 activity and platelet aggregometry tests were performed. Since Glanzman Thrombasthenia and Bernard Soulier Syndrome were included in the differential diagnosis, CD41, CD61 and CD42 levels were measured by flow cytometry. The PAI-1 Activity of the patient, whose all requested tests were normal, was found to be <0.05, and the patient was diagnosed with PAI-1 deficiency. The patient was started on tranexamic acid 500 mg tablet 4x1. Subcapsular hematoma in the spleen of the patient, whose abdominal pain decreased and vital signs were stable, was followed up with daily USG. 20 days later, it was seen that the abdomen had completely disappeared in USG. The patient, who was diagnosed with PAI-1 deficiency, a rare cause of bleeding disorder, was thus protected from unnecessary surgical procedures. And then, 1 year later, 6 jaw implant surgeries were performed on the patient under daily 3x4 tablet tranexamic acid treatment without complications and without the need for transfusion.

**Picture 1.** Subcapsular splenic hematoma, computed tomography (CT), transverse section



Conclusion In conclusion, PAI-1 deficiency is a rare bleeding disorder and may present with mild to severe bleeding clinic. Treatment with tranexamic acid is safe and sufficient and avoids unnecessary transfusion and surgical procedures. PAI-1 deficiency should be kept in mind in bleeding disorders of unknown origin.

## EVALUATION OF SAFETY PROFILE OF RITUXIMAB+LENALIDOMIDE PROTOCOL IN FRAIL ELDER RELAPSED/REFRACTORY DIFFUSE LARGE B CELL LYMPHOMA PATIENTS

**Bahar Sevgili**<sup>1</sup>, Tural Pashayev<sup>2</sup>, Denis Sabriye Bozer<sup>1</sup>, Ajda Güneş<sup>1</sup>, Fatma Keklik Karacadağ<sup>3</sup>, Güray Saydam<sup>1</sup>

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Presentation Type Poster

Abstract Category Adult Hematology Abstract Categories -> Lymphoma Objective

In our knowledge, there is no standardized treatment for frail elder relapsed or refractory (R/R) diffuse large B cell lymphoma (DLBCL) patients. Chemo-free regimens have promising results with acceptable toxicity profile. We aimed to evaluate safety profile and adverse reactions of rituximab+lenalidomide (R2) protocol in elder DLBCL patients.

#### Case Report

Methodology

Total of 5 patients who had R/R DLBCL and were ineligible for autologous stem cell transplantation between December 2020-December 2021 included in our study. Age, sex, ECOG performance status (PS), Cumulative Illness Rating Scale-Geriatric (CIRS-G). R2 protocol was planned as rituximab 375 mg/m2 D1+ lenalidomide 5-20 mg D1-21 for 6 cycles. Response assessment was performed by PET/CT according to Lugano criteria. Cytopenias, infectious complications, gastrointestinal or skin reactions of individuals were reported. Median follow up after first relapse was 14 months (2-22 months).

ResultsResponse assessment could not be done as one patient could not complete 2nd cycle and 1 patient could not be visited as he suffered from cardiopulmonary prolonged comorbidities. 3 patients were detected stage 4B, 1 of stage 2B and 1 of 1B. 3 of 5 patients also had extranodal involvement. Median CIRS-G score of individuals was 15 points (10-17) and ECOG PS was 2. 4 patients were initiated aspirin prophylaxis and 1 patient was already under prophylaxis of rivaroxaban due to venous thromboembolism history.

Lenalidomide dose reduction required for 3 individuals due to grade 3 cytopenias. 2 patients with acquired community pneumonia and 1 urinary tract infection were reported; but all of them were managed as outpatient. 1 patient had gastrointestinal side effect. None of the patient had thromboembolic event. 2/5 patients were reported as partial response (PR) and 2 of them were refractory to R2 protocol. 1 patient was detected early relapse after PR. 2 patients died of progressive disease.

Conclusion R/R DLBCL management, especially in elder patients, is challenging due to clonal evolution or addition of new mutations that cause drug resistance. Thus, frailty of patients, polypharmacy and increased side effects are major causes of low response rates. In our study, R2 protocol was evaluated as well tolerated with well-designed supporting treatments. In conclusion, R2 combination seems to be a promising alternative protocol with manageable toxicity profile and acceptable response rates.

### IBRUTINIB THERAPY IN RELAPSED/REFRACTORY PRIMARY CENTRAL NERVOUS SYSTEM LYMPHOMAS

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Presentation Type Poster

Abstract Category Adult Hematology Abstract Categories -> Lymphoma

#### Objective

Primary central nervous system lymphoma (PCNSL) is a rare disease that affects the brain, leptomeninges, spinal cord, cerebrospinal fluid, or vitreoretinal compartment without evidence of systemic disease. Although some treatment success is achieved with high dose methotrexate-based regimens, the prognosis is still poor. In this respect, new therapeutic approaches are required.

#### Case Report

#### Methodology

The clinical data of 6 patients diagnosed with primary central nervous system lymphoma in a hematology center of a university hospital were analyzed for 3 years. Ibrutinib monotherapy was applied to these 6 refractory patients as the last-stage treatment. The results were evaluated.

#### Results

Six patients (5 women, 1 man) with relapsed and refractory PCNSL received ibrutinib as monotherapy. As initial treatment, 3 patients received high-dose methotrexate + rituximab, 1 patient received MATRix (Rituximab, Methotrexate, Cytarabine, Thiotepa), 1 patient received high-dose methotrexate. Only one patient received radiotherapy (RT), following the initial treatment. Two patients were consolidated with autologous transplantation and one patient with RT. All patients received treatment at a dose of 560 mg. No serious side effects have been detected. Three patients who received ibrutinibmonotherapy for the shortest 1 month and the longest 24 months died. The patient, who has been on ibrutinib monotherapy for 11 months, is being followed up stably.

## DIFFUS LARGE CELL LYMPHOMA OF THE UTERUS PRESENTED WITH VAGINAL BLEEDING: A CASE REPORT

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Presentation Type Poster

Abstract Category Adult Hematology Abstract Categories -> Lymphoma

Objective

Case Report

DIFFUS LARGE CELL LYMPHOMA OF THE UTERUS PRESENTED WITH VAGINAL BLEEDING: A CASE REPORT

Objective: Diffuse large B-cell lymphoma (DLBCL) is the most common histological subtype of non-Hodgkin lymphoma (NHL), accounting for approximately 25% of non-Hodgkin lymphoma cases. Patients with diffuse large b-cell lymphoma typically present with a rapidly expanding symptomatic mass, mostly nodal enlargement in the neck or abdomen. Systemic "B" symptoms (i.e., fever, weight loss, night sweats) occur in about 30% of patients. Bone marrow involvement and extra nodal extramedullary disease occur in 30 and 40 percent of cases, respectively. We report a case of diffuse large B-cell lymphoma in the operated uterus admitted to obstetrics and gynecology due to vaginal bleeding.

Case report: A 67-year-old female patient was admitted to the obstetrics and gynecology outpatient clinic due to vaginal bleeding. Ultrasonography showed a large pelvic tumor, no distinction could be made from uterus and ovaries. Tumor markers (CA-125, AFP, CEA, and B-HCG) were all within the normal range. Magnetic resonance imaging (MRI) scan of the abdomen revealed a large pelvic mass, most likely the uterus, which compressed the left and right ureter, and bilateral pelvic lymphadenopathy. Pet scan showed intense hypermetabolism (primary malignant process) of 40\*27 mm filling the endometrial cavity Total abdominal hysterectomy and bilateral salpingo-oopherectomy was performed with the preliminary diagnosis of endometrial cancer. Postoperative pathology came as diffuse large B-cell lymphoma. A bone marrow biopsy was taken, which showed normocellular bone marrow. Treatment was started with series of rituximab, cyclophosphamide, adriamycin, vincristine and prednisone (R-CHOP) chemotherapy. After 3 courses of chemotherapy a clear regression was seen of all tumor localizations. After 6 courses a control CT scan was performed, which showed regression of all intra-abdominal lymphoma localizations. Unfortunately, the patient died of COVID-19 infection 11 months after the treatment.

Discussion: Primary malignant lymphomas of the uterus or cervix are rare. In most cases of lymphomas of the uterus it concerns secondary involvement of the disease. Most common symptoms of primary uterine lymphoma are abnormal vaginal bleeding or abdominal pain and mass as reported in this case. The prognosis of the patient depends on the stage of the disease, the location and the subtype lymphoma. The Ann Arbor classification can be made based on findings on the CT scan and bone marrow biopsy. Due to low incidence of primary uterine lymphoma, the standard treatment method is not available. Literature is recommended to treat with hysterectomy and bilateral salpingo-oophorectomy,

chemotherapy, irradiation or a combination of these. R-CHOP chemotherapy was shown to improve 5-year survival rates significantly in patients over 60 years of age with diffuse large B-cell lymphoma.

Conclusion: A primary uterine lymphoma is a rare malignancy of the female genital tract. No evidence-based advice is available for treatment due to its low incidence. As in our patient, who presented with vaginal bleeding, primary uterine lymphoma should be kept in mind.

Methodology Results Conclusion

## CLONAL CD4+ CYTOTOXIC T LYMPHOCYTOSIS CONCOMITANT WITH POEMS SYNDROME: A CO-EXISTENCE OR KEY FINDING FOR RELEVANCE IN THE PATHOGENESIS

**Burak Gültekin**<sup>1</sup>, Berker Kaya<sup>1</sup>, Yağmur Göksoy<sup>1</sup>, Mustafa Altınkaynak<sup>1</sup>, Birgül Öneç<sup>2</sup>, Ali Yılmaz Altay<sup>3</sup>, Gülçin Yeğen<sup>3</sup>, Sevgi Kalayoğlu Beşişik<sup>4</sup>

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Presentation Type Poster

Abstract Category Adult Hematology Abstract Categories -> Myeloma

Objective

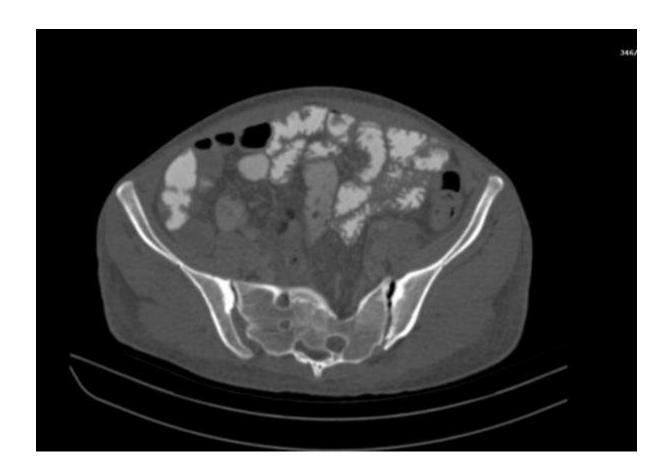
Case Report

POEMS syndrome is characterized by small plasma cell clones and high serum VEGF levels. It causes M protein-related neuropathy and is considered a paraneoplastic syndrome.

Case: A 46-year-old woman presented with numbness, abdominal fullness, fever, and night sweats. She had palmar erythema, erythematous plaques on extremities, ascites, peripheral lympadenomegalies and hepatosplenomegaly. She had IgG-type monoclonal gammopathy. EMG revealed mixed-type axonal polyneuropathy.

Fat pad aspiration was negative for amyloidosis. PET-CT showed a sclerotic bone lesion and subcutaneous tissue, and muscle diffuse FDG uptake. Muscle and liver biopsy revealed CD4+ T cell infiltration with bone marrow and peripheral blood CD4+ T cell dominance. She was commenced on lenalidomide and dexamethasone. After two courses monoclonal gammopathy disappeared.

Discussion: Expansion of CD4+ T cells in blood and tissues was not observed in POEMS. CD4+T synthesized cytokines may have relevance in pathogenesis



Methodology Results Conclusion

## A RARE CASE OF MULTIPLE MYELOMA PRESENTING AS A CRANIAL NERVE PALSY

Elif Sakcı<sup>1</sup>, İpek Yönal Hindilerden<sup>1</sup>, Tarık Onur Tiryaki<sup>1</sup>, Beyza Oluk<sup>1</sup>, Yunus Çatma<sup>1</sup>, Simge Erdem<sup>1</sup>, Zakir Sakcı<sup>3</sup>, Sevgi Kalayoğlu Beşışık<sup>1</sup>, Meliha Nalçacı<sup>1</sup>

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Presentation Type Poster

Abstract Category Adult Hematology Abstract Categories -> Myeloma

Case Report A 59-year-old female presented with headache, inward deviation of the left eye and diplopia. MRI revealed a 48\*55\*17 mm mass lesion on the clivus extending to the sphenoid sinus, atlas and axis. The mass lesion also infiltrated into the left jugular vein. Transsphenoidal biopsy demonstrated monoclonal plasma cells with kappa light chain restriction. Six cycles of radiotherapy at a dose of 50.4 Gy/28 Fr and 4 courses of VCD protocol were administred. On control MRI, there was no regression in the size of the mass lesion and the patient complained of on going diplopia. As 2nd line treatment, MATRİX protocole was administered. Stem cells were mobilised after completion of the 2nd course of MATRİX. Response assessment after 2 courses of matrix showed almost total regression.

She subsequently underwent autologous stem cell transplantation (ASCT) with BCNU and thiotepa as the conditioning regimen. At follow up one month after ASCT, cranial MRI showed almost complete regression of the mass.

Methodology

Result	S
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Conclusion

## THE LONG-TERM EFFICACY OF ERYTHROPOIESIS-STIMULATING AGENTS IN PATIENTS WITH LOW-RISK OR INTERMEDIATE-1-RISK MYELODYSPLASTIC SYNDROME: MULTICENTER REAL-LIFE DATA

**Müzeyyen Aslaner Ak<sup>1</sup>,** Ayfer Gedük<sup>2</sup>, İbrahim Halil Açar<sup>3</sup>, Merve Gökçen Polat<sup>2</sup>, Cenk Sunu<sup>4</sup>, Ali Zahit Bolaman<sup>5</sup>, Tuğba Hacıbekiroğlu<sup>4</sup>, Birol Güvenç<sup>3</sup>, Şehmus Ertop<sup>1</sup>

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Presentation Type Poster

Abstract Category Adult Hematology Abstract Categories -> Other Diseases

#### Objective

To evaluate the long-term clinical efficacy of epoetin alfa and darbepoetin alfa in patients with myelodysplastic syndromes (MDS) in the real-life setting.

#### Case Report

#### Methodology

A total of 204 patients with low-risk or intermediate-1-risk MDS who received epoetin alfa or darbepoetin alfa were included. Hemoglobin levels and transfusion need were recorded before and during 12-month, 24-month, 36-month and 48-month treatment.

#### Results

At 36-month (p=0.025) and 48-month (p=0.022) visits, epoetin alfa vs. darbepoetin alfa yielded significantly higher hemoglobin levels. Transfusion-need was also significantly lower in epoetin alfa vs. darbepoetin alfa groups at 24-month (p=0.012), and in low risk vs. intermediate risk groups at 24-month (p=0.018), 36-month (p=0.025) and 48-month (p<0.001) visits(figure-1). Treatment response rates at 24-month, 36-month and 48-month visits in epoetin alfa (43.0, 33.6 and 27.1%), darbepoetin alfa (29.9, 22.7 and 16.5%), low risk (39.3, 30.0 and 26.0 %) and intermediate risk (29.6, 24.1 and 11.1%) groups were lower than 12-month response rates, significantly at 36-month and 48-month visits (p ranged <0.05 to <0.001).

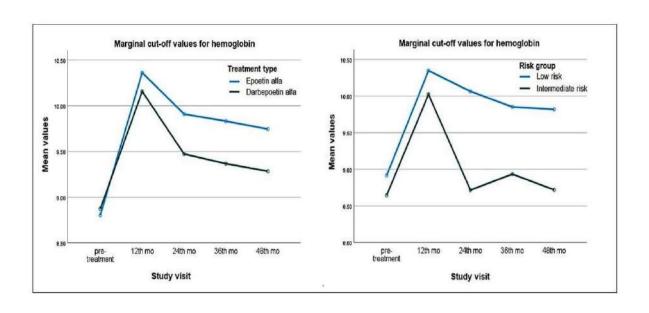


Figure-1: Marginal cut-off values for hemoglobin according to treatment type and risk groups

Conclusion This real-life long-term ESA extension study investigated the clinical efficacy of epoetin alfa and darbepoetin alfa for up to 48 months, revealed the treatment efficacy to reach plateau starting from the 24th month of therapy with a continuing decrease in treatment response rates, regardless of treatment type, risk status or gender. Nonetheless, significantly higher hemoglobin levels and marked improvement in transfusion-need was evident in the epoetin-treated vs. darbepoetin-treated groups and in the low risk vs. intermediate risk groups. Keywords: Myelodysplastic syndrome; darbepoetin alfa; duration of response; epoetin alfa; long-term; low-risk- intermediate-1–risk; transfusion dependence; treatment response.

## INSIGHT INTO HYPEREOSINOPHILIA FROM THE HEMATOLOGY CLINIC; A SINGLE-CENTER EXPERIENCE

**Beyza Oluk<sup>1</sup>**, Nigar Taghiyeva<sup>1</sup>, Elif Sakcı<sup>1</sup>, Simge Erdem<sup>1</sup>, İpek Yönal Hindilerden<sup>1</sup>, Mustafa Nuri Yenerel<sup>1</sup>, Meliha Nalçacı<sup>1</sup>, Sevgi Kalayoğlu Beşişik<sup>1</sup>

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Presentation Type Poster

Abstract Category Adult Hematology Abstract Categories -> Other Diseases

#### Objective

The initial approach to patients presenting with an absolute eosinophil count (AEC)  $\geq 1500/\mu L$  is to investigate secondary causes for which specific therapy is available. The second consideration should be given to the existence of eosinophil-mediated organ damage and/or dysfunction to prevent life-threatening complications. A similarly important step is to decide on treatment or observation, whereas in acutely ill patients, although tests may be affected, steroid therapy should be prioritized. Here, we summarize our experience in hypereosinophilia referred after no underlying secondary cause has been found.

#### Case Report

#### Methodology

We retrospectively screened hypereosinophilias registered on our hematology clinical electronic system and whose data were evaluable to include in this study. We documented the involved organs at the presentation and last diagnosis. All patients were screened for myeloid neoplasms associated with imatinib-sensitive mutations. All patients received empirically antiparasitic therapy. Genomic analyses were not performed due to financial support deficiency. Steroids were the most commonly preferred treatment in primary care (45%). Hydroxyurea treatment was given to 25% of them as first-line therapy.

Results We reviewed data from 31 patients. The mean age was 48 years (19-89), with a mild male-to-female predominance of 1.2:1. The mean eosinophil level at the time of diagnosis was  $8600/\mu L$  (1900 –  $46000/\mu L$ ). Antiparasitic treatment contributed to 13% of patients' improvement. In 16% of patients, the underlying pathology was autoimmune. Myeloproliferative or lymphocytic variant HES was not diagnosed in this study group. In 13% of patients had a lymphoproliferative disease. In the remaining 45% of patients, the diagnosis was idiopathic HES. The most common organ involved was the heart (39%), with observations of endomyocardial fibrosis, increased echogenicity in the myocardium, and endomyocardial thickening. Two patients had heart failure due to restrictive myocarditis. 19% of patients had asthma-like pulmonary symptoms. Thromboembolic events were noted in 6 patients as venous in 5 patients and arterial in one patient. Eosinophil counts were not significant for cardiac involvement and thrombosis

Conclusion Hypereosinophilia is potentially harmful regardless of the underlying cause. A multidisciplinary approach, involving specialists in hematology, immunology, cardiology, pulmonology, dermatology, and other relevant fields should be involved in the diagnosis and treatment monitoring, which may provide a more accurate rate of a myeloproliferative or lymphocytic variant of the HES or idiopathic HES.

## A DIFFERENT POINT OF VIEW: FACIAL PARALYSIS AS A MANIFESTATION OF AL AMYLOIDOSIS

Kıvanç Koruk<sup>1</sup>, Funda Fidan<sup>2</sup>, Azize Aslanlı<sup>2</sup>, Simge Erdem<sup>1</sup>, Sevgi Kalayoğlu Beşışık<sup>1</sup>

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Presentation Type Poster

Abstract Category Adult Hematology Abstract Categories -> Other Diseases

#### Case Report

Amyloid neuropathy occurs only in systemic amyloidosis. It is progressive and may begin at a different time of disease. The typical pattern is symmetrical, and limb predominant. We here reported an AL amyloidosis patient with severe cranial neuropathy manifested as facial paralyzes.

Case: A 56-year-old man was evaluated for anemia and proteinuria. He had a monoclonal gammopathy IgG, lambda type with a serum creatinine level increase. The bone marrow clonal plasma cell ratio was less than 10%. Kidney function deteriorated and proteinuria turned to a massive degree. A kidney biopsy was decided. Congo-red positivity with lambda deposits in the glomeruli and arteriolar vessels was detected. He had facial paralysis and heart failure with high serum NT-pro-BNP levels. A diagnosis of AL amyloidosis with renal, cardiac, and cranial nerve involvement was made.

Discussion: AL amyloidosis-related cranial neuropathy is extremely rare but should be in mind

along with other typical manifestations.



#### A CASE OF MAY HEGGLIN ANOMALY WITH PREGNANCCY

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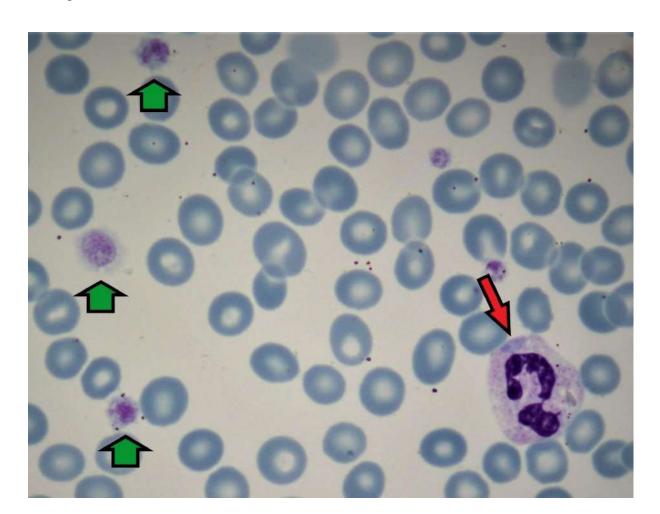
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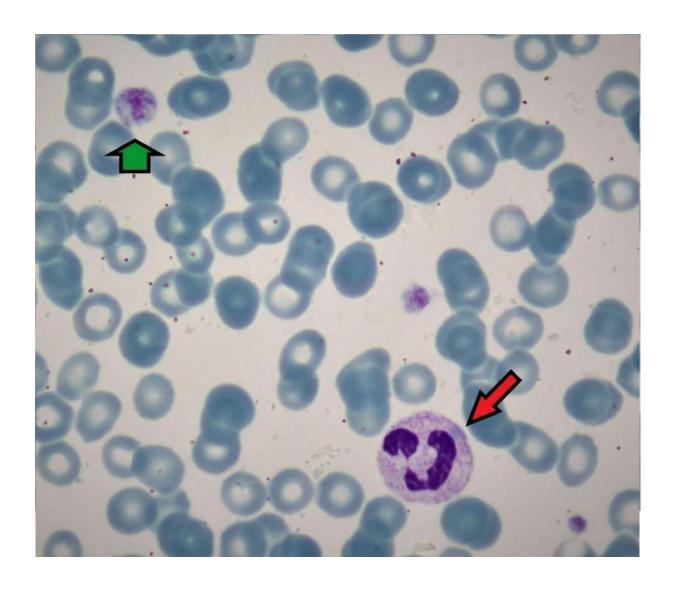
Abstract Category Adult Hematology Abstract Categories -> Platelet Diseases

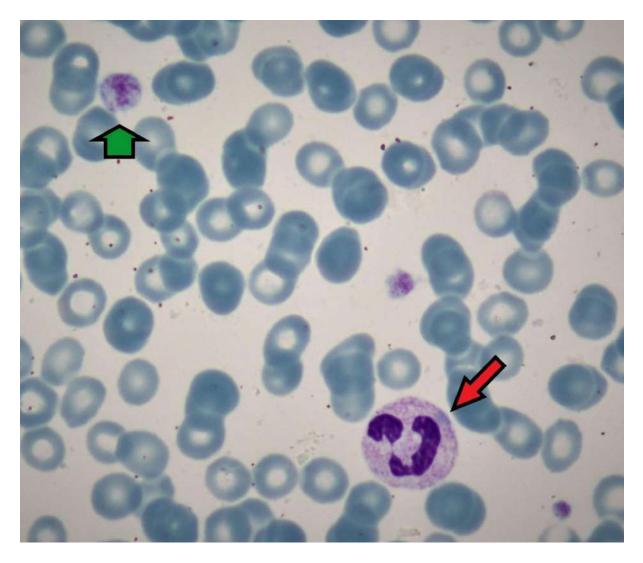
Objective The May-Hegglin anomaly (MHA) is a rare autosomal dominant disease due to MYH9 gene mutations characterized by neutrophils with abnormal cytoplasmic inclusions, large platelets, and variable thrombocytopenia.

#### Case Report

A 33-year-old female patient, 17 weeks pregnant, who had been followed up with the diagnosis of ITP, was referred to us by an obstetrician because of thrombocytopenia. Her platelet count was 15000/µl and MPV was in the normal range at admission. Her blood smear revealed giant platelets of which estimated count was about 80000/µl and Döhle-like inclusions in the cytoplasm of granulocytes. Detecting MYH9 gene with PCR confirmed heterozygous mutation c.5797C>T which causes an amino acid substitution (Arg1933Ter) that produces a premature stop codon. She was the index case of her family. Her pregnancy course was uneventful. Since it was reported that there may be problems during clot formation in this group of patients, prenatal IVY bleeding time was also examined, it was found to benormal (2min 15sec). She underwent cesarean delivery under general anesthesia and a baby boy with a birth weight of 3100 g was delivered.







#### Methodology Results

Conclusion Baby's platelet count was in normal range and his smear showed normal shaped and granulated platelets. While evaluating blood smear in patient with low and giant platelets, granulocytes should be carefully examined for Döhle-like inclusions. Each patient should be evaluated individually and in case of pregnancy multidisciplinary approach is needed.

## EVALUATION OF BK POLYOMAVIRUS INFECTION FREQUENCY AND RISK FACTORS FOLLOWING ALLOGENEIC STEM CELL TRANSPLANTATION: A SINGLE CENTER EXPERIENCE

**Barış Gezici<sup>2</sup>**, Nur Akad Soyer<sup>1</sup>, Ajda Ersoy Güneş<sup>1</sup>, Güray Saydam<sup>1</sup>, Mahmut Töbü<sup>1</sup>, Fahri Şahin<sup>1</sup>, Filiz Vural<sup>1</sup>

#### **Institution List**

- 1. Ege University, Izmir
- 2. Bozyaka Training and Research Hospital, Izmir

Presentation Type Poster

Abstract Category Adult Hematology Abstract Categories -> Stem Cell Transplant

#### Objective

Hemorrhagic cystitis (HC) is a clinical entity that mostly occurs after allo-SCT and reduces the quality of life of patients, prolongs hospitalization and increases the financial burden of treatment. While the main reason for early-onset HC is the toxicity of the conditioning regimen, BK polyomavirus (BKV) is the main cause in late-onset HC. BKV-associated hemorrhagic cystitis (BKV-HC) also draws attention due to the lack of a definitive treatment agreed in the literature. In this study, it was aimed to investigate frequency and risk factors of BKV-HC development.

#### Methodology

Overall, 221 adult patients who underwent first allo-SCT between 2012 and 2020 at our institution, were included in this single center, retrospective, observational study. Data on patients' sociodemographic information, characteristics of the allo-SCT procedure and complications, donor characteristics, and parameters related to BKV-HC were collected.

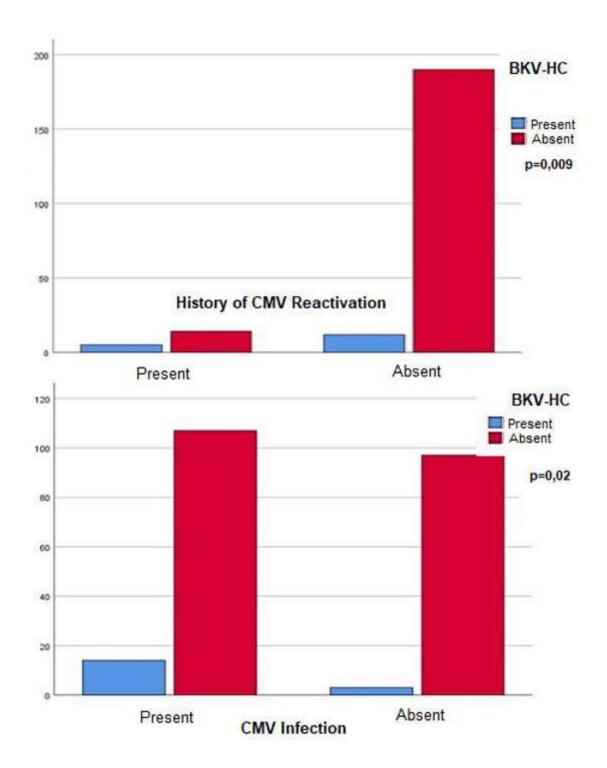
#### Results

The mean follow-up period was 1067.4 days. Matched related donors in 166 (75.1%), matched unrelated donors in 47 (21.3%) and haploidentic donors in 8 (3.6%) transplants were used. Of the conditioning regimens used in transplants, 167 (75.6%) were myeloablative, 36 (16.3%) were reduced-intensity and 18 (8.1%) were nonmyeloablative.

The mean engraftment time was 17.9 days. aGVHD, cGVHD, BKV-HC occured in 86 (38.9%), 44 (23%), 17 (7.7%) of the patients included in the study, respectively. Patient and transplant-related characteristics categorized by BKV-HC status are shown in Table-1. Use of myeloablative conditioning regimen (P = 0.047), development of CMV infection (P = 0.02) and history of CMV infection prior to allo-SCT (P = 0.009) were determined as risk factors for the development of BKV-HC (Image-1, Table-1). No correlation was observed between the severity of BKV-HC and peak BKV DNA in urine.

BKV-HC	Present (n=17)	Absent (n=204)			
Characteristics	n (%)	n (%)	P value		
Donor Characteristics	Matched related	10 (58,8)	156 (76,5)		
	Matched unrelated	7 (41,2)	40 (19,6)	0,09	
	Haploidentical	910	8 (3,9)		
Conditioning Regimen	Myeloablative	17 (100)	150 (73,5)		
	RIC		36 (17,6)	0,047	
	Nonmyeloablative	(4)	18 (8.8)		
Conditioning Regimen	With cyclophosphamide	16 (94.1)	174 (85,3)	0,48	
	Without cyclophosphamide	1 (5,9)	30 (14,7)		
Conditioning Regimen	With ATG		23 (11,3)	0,23	
	Without ATG	17 (100)	181 (88,7)		
History of CMV Infection Prior to Allo-SCT	Positive	5 (29,4)	14 (5,9)	0,009	
	Negative	12 (70,6)	190 (93,1)	0,00	
Acute GVHD	Positive	10 (58.8)	76 (37,3)	0,08	
	Negative	7 (41,2)	128 (62,7)		
Chronic GVHD	Positive	2 (15,4)	42 (23,6)	0,74	
	Negative	11 (84,6)	136 (76,4)		
CMV Infection after Allo-SCT	Positive	14 (82,3)	107 (52,5)	0,02	
	Negative	3 (17.7)	97 (47,5)		

Table-1: Demographic and transplantation-related characteristics of patients according to CMV infection status



Conclusion In our study, frequency and risk factors of BKV-HC were determined. Reporting of development of CMV infection and a positive history of CMV infection prior to allo-SCT as risk factors for development of BKV-HC was especially significant. The results suggest that in patients with a history of CMV infection prior to allo-SCT, avoidance of other factors that may increase the risk of BKV-HC, such as the use of a myeloablative conditioning regimen, may be preferred.

# EVALUATION OF THE EFFECTS OF CYTOMEGALOVIRUS AND BK POLYOMAVIRUS INFECTIONS ON OVERALL SURVIVAL FOLLOWING ALLOGENEIC STEM CELL TRANSPLANTATION: A SINGLE CENTER EXPERIENCE

**Barış Gezici<sup>2</sup>**, Nur Akad Soyer<sup>1</sup>, Ajda Ersoy Güneş<sup>1</sup>, Güray Saydam<sup>1</sup>, Mahmut Töbü<sup>1</sup>, Fahri Sahin<sup>1</sup>, Filiz Vural<sup>1</sup>

#### **Institution List**

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- 2. Bozyaka Training and Research Hospital, Izmir

Presentation Type Poster

Abstract Category Adult Hematology Abstract Categories -> Stem Cell Transplant

Objective Allogeneic stem cell transplantation (ASCT) is a procedure with an increasing frequency of application and ever-expanding indications. Although it is the only modality that provides cure for most diseases, it carries the risk of procedure-related mortality. Infections are one of the most common complications due to severe and prolonged immunosuppression and the most common infection after ASCT procedure is Cytomegalovirus (CMV) infection. End organ involvement is defined as CMV disease and it still carries a relatively high risk of mortality despite advances in diagnostic and treatment methods. Similarly, hemorrhagic cystitis (HC) is a clinical entity that reduces the quality of life of patients, prolongs hospitalization and increases the financial burden of treatment. BK polyomavirus (BKV) is the main cause in lateonset HC. In this study, it was aimed to investigate the effects of CMV infection, CMV disease and BKV-HC development on overall survival.

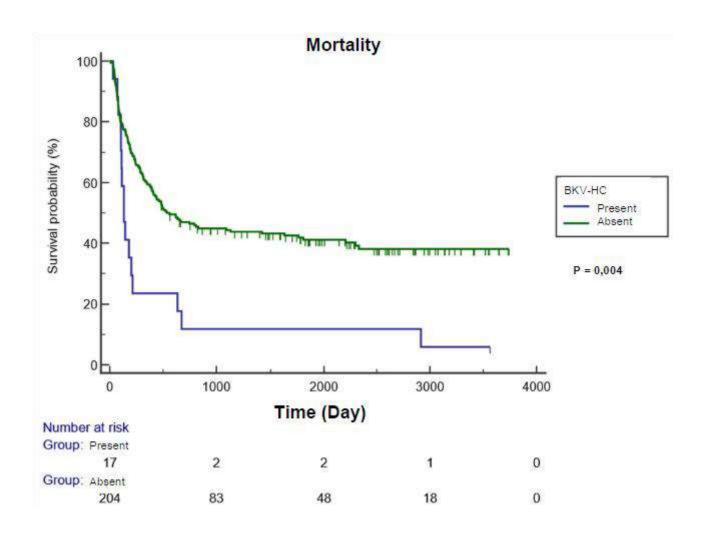
#### Case Report

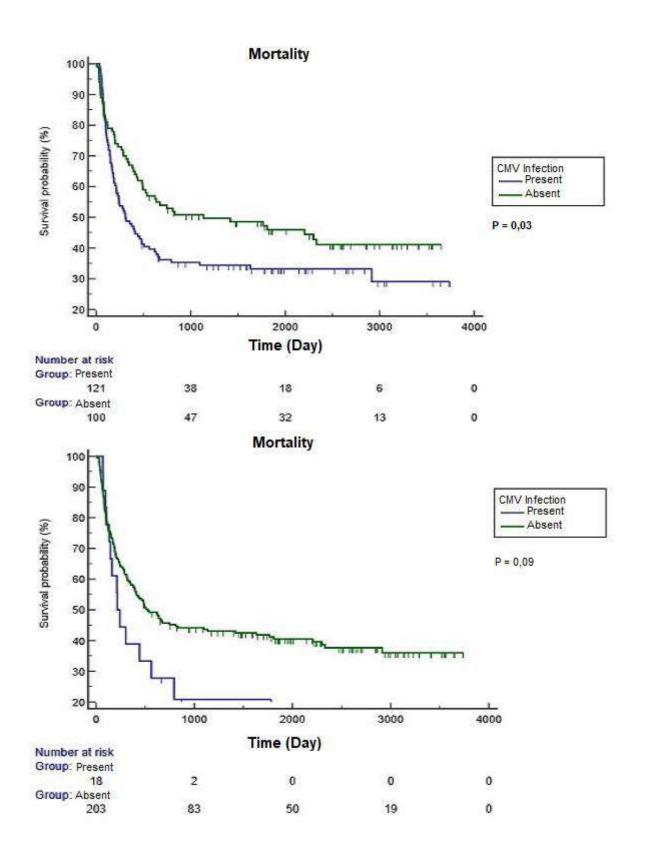
Methodology Overall, 221 adult patients who underwent first allo-SCT between 2012 and 2020 at our institution, were included in this single center, retrospective, observational study. Data on patients' sociodemographic information, characteristics of the allo-SCT procedure and complications, donor characteristics, and parameters related to CMV infection, disease and BKV-HC were collected.Results39.4% of the patients were female, with a mean age of 41.5±14.1 (18-70) years. The mean follow-up period was 1067.4±1125 (30-3742) days. Matched relatives in 166 (75.1%), matched unrelated donors in 47 (21.3%) and haploidentical donors in 8 (3.6%) transplants were used. Of the conditioning regimens, 167 (75.6%) were myeloablative, 36 (16.3%) were reduced-intensity, and 18 (8.1%) were non-myeloablative. The mean engraftment time was 17.9±5.5 days. Acute GVHD occurred in 86 patients (38.9%) and chronic GVHD developed in 44 (23%) patients. Patients with CMV infection and BKV-HC had a 1.46 (1.04-2.04) and 3.94 (1.83-8.45) times higher risk of mortality than patients without CMV infection and BKV-HC, respectively. These rates were statistically significant. Those with CMV disease had a 1.79 (0.91-3.51) times higher risk of mortality than those without. However, this increased risk of mortality for CMV disease was not statistically significant. ConclusionIn our study, it was shown that overall survival decreased with the development of CMV infection and BKV-HC after allo-SCT. Therefore, close CMV follow-up and appropriate prophylaxis for CMV can reduce the development of CMV infection and improve survival. In addition, effective treatments for BKV-HC may lead to improved survival.

Methodology Overall, 221 adult patients who underwent first allo-SCT between 2012 and 2020 at our institution, were included in this single center, retrospective, observational study. Data on patients' sociodemographic information, characteristics of the allo-SCT procedure and complications, donor characteristics, and parameters related to CMV infection, disease and BKV-HC were collected.

#### Results

39.4% of the patients were female, with a mean age of 41.5±14.1 (18-70) years. The mean follow-up period was 1067.4±1125 (30-3742) days. Matched relatives in 166 (75.1%), matched unrelated donors in 47 (21.3%) and haploidentical donors in 8 (3.6%) transplants were used. Of the conditioning regimens, 167 (75.6%) were myeloablative, 36 (16.3%) were reduced-intensity, and 18 (8.1%) were non-myeloablative. The mean engraftment time was 17.9±5.5 days. Acute GVHD occurred in 86 patients (38.9%) and chronic GVHD developed in 44 (23%) patients. Patients with CMV infection and BKV-HC had a 1.46 (1.04-2.04) and 3.94 (1.83-8.45) times higher risk of mortality than patients without CMV infection and BKV-HC, respectively. These rates were statistically significant. Those with CMV disease had a 1.79 (0.91-3.51) times higher risk of mortality than those without. However, this increased risk of mortality for CMV disease was not statistically significant.





	Deceased N (%)	Alive N (%)	Median Survival (%95 CI)	Hazard Ratio (%95 CI)	Log Rank p value
CMV Infection					
Present (n:121)	81 (66,94)	40 (33,06)	311 (214-483)	1,46 (1,04-2,04)	0,03
Absent (n:100)	56 (56)	44 (44)	1136 (491-2331)		
Overall	137 (61,99)	84 (38,1)	491 (355-794)		
CMV Disease					
Present (n:18)	14 (77,78)	4 (22,2)	216 (133-562)	1,79 (0,91-3,51)	0,09
Absent (n:203)	123 (60,59)	80 (39,41)	525 (394-1136)		
BKV-HC					
Present (n:17)	16 (94,12)	1 (5,8)	133 (104-214)	3,94 (1,83-8,45)	0,004
Absent (n:204)	121 (59,31)	83 (40,69)	538 (404-1420)		

Conclusion In our study, it was shown that overall survival decreased with the development of CMV infection and BKV-HC after allo-SCT. Therefore, close CMV follow-up and appropriate prophylaxis for CMV can reduce the development of CMV infection and improve survival. In addition, effective treatments for BKV-HC may lead to improved survival.

### A RARE ETIOLOGY OF HEPATOMEGALY: EXTRAMEDULLARY HEMATOPOIESIS AFTER ALLOGENEIC STEM CELL TRANSPLANTATION

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Institution List 1.Ege University, Faculty of Medicine, Department of Hematology

Presentation Type Poster

Abstract Category Adult Hematology Abstract Categories -> Stem Cell Transplant

Case Report Introduction: Hepatomegaly is a challenging clinical finding with increased morbidity after allogeneic hematopoietic stem cell transplantation (Allo-HSCT). Extramedullary hematopoiesis is highly associated with bone marrow failure.1 We aimed to present a case report about hepatomegaly associated poor graft after allo-HSCT. Case: Twenty one-year-old male patient was admitted to Ege University HSCT unit with B cell acute lymphoblastic leukemia in first remission. He was performed allo-HSCT with mismatched unrelated donor. His conditioning regimen included total body irradiation (TBI) +cyclophosphamide (Cy)+ anti-thymocyte globulin (ATG). On day 10, cytomegalovirus (CMV) DNA detected >5000 IU/ml. Ganciclovir treatment was added by infectious disease specialist. Engraftments of three lines were completed on day 15. 1st month bone marrow (BM) biopsy control was normocellular and his chimerism was %100, CMV DNA was undetectable. He was discharged with valganciclovir maintenance for 2 weeks. On day 35, he was internalized with ascites, pancytopenia. He complained no weight change, but loss of appetite. Liver/renal functions, bilirubin, C-reactive protein levels were normal. The BM aspiration and biopsy was performed as his pancytopenia were worsened. Biopsy was reported no increase of blasts but hypocellular bone marrow without any fibrotic changes. Cytogenetic analysis of BM showed no clinically significant mutations. The ascites sample was also analyzed. Serum-ascites albumin gradient was 1,1, cytological analysis was reported neither infection nor malignancy. Abdomen ultrasound was reported with hepatomegaly (18 cm) and ascites. Liver biopsy was reported extramedullary hematopoiesis. There were neither inflammatory changes nor graft versus host disease. Filgrastim 5 mcg/kg/day, eltrombopag 50-300 mg/day titrated by daily complete blood count analysis, were given as supporting treatment. Valganciclovir was discontinued as CMV DNA clearance was detected. On day 90, his cytopenia tended to be improved also liver became non-palpable. He is still under follow-up with full donor chimerism and no cytopenias recurred for 21 months. Discussion: After allo-HSCT, several etiologies of hepatomegaly such as infections, VOD, malignant tumor infiltrations, GVHD should be evaluated carefully.1,2 Liver biopsy should be performed in case of unexplained hepatomegaly.2 References: 1. Prabahran, A., Koldej, R., Chee, L., & Ritchie, D. (2022).

Clinical features, pathophysiology, and therapy of poor graft function post–allogeneic stem cell transplantation. Blood Advances, 6(6),1947-1959. doi.org/10.1182/bloodadvances.2021004537 2. Fouladi, D. F., Fishman, E. K., & Kawamoto, S. (2023). Extramedullary Hematopoiesis: A Forgotten Diagnosis and a Great Mimicker of Malignancy. Journal Computer Assisted Tomography, of 10-1097. doi: 10.1097/RCT.0000000000001428.

### SCABIES INDUCED HYPEREOSINOPHILIC SYNDROME AFTER ALLOGENEIC STEM CELL TRANSPLANT: CASE REPORT

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#### **Institution List**

- 1. Division of Hematology, Department of Internal Medicine, Istanbul Faculty of Medicine, Istanbul University, Istanbul, Turkey.
- 2. University of Health Sciences Bakırkoy Dr.Sadi Konuk Training and Research Hospital, Hematology Clinic, Istanbul, Turkey

Presentation Type Poster

Abstract Category Adult Hematology Abstract Categories -> Stem Cell Transplant

Case Report Hypereosinophilic Syndromes (HES) are disorders in which marked secondary hypereosinophilia (HE) are accounted for organ damage. Parasitic infections can cause HE but whether it can lead to HES is unknown. A 67 years old male allotransplanted for FLT-3(+) AML in 1st hematological CR was evaluated for recurrent eosinophil dominant pleural effusion (PE), which first appeared during AML induction treatment. He complained of widespread itching one month after allotransplantation. On physical examination, scabies lesions were evident. Topical permethrin was administered. Four months after allotransplant, AEC remained as high as 4500 c/uL and PE persisted. Since scabies lesions were still present, oral ivermectin was administered. AEC returned to normal 4 weeks after initiation of ivermectin. Regression was observed in PE. PE and response to antiparasitic therapy may indicate organ involvement of HES induced by scabies, which should be considered in the differential diagnosis of HE.

Methodology Results Conclusion

# EFFICACY OF CLADRIBINE COMBINED WITH RITUXIMAB VERSUS CLADRIBINE ALONE IN THE TREATMENT OF HAIRY CELL LEUKEMIA: A RETROSPECTIVE SINGLE-CENTER STUDY

İbrahim Halil Açar<sup>1</sup>, Birol Güvenç<sup>1</sup>

<sup>1</sup>Cukurova University Faculty of Medicine, Department of Haematology, Adana, Turkey

#### Abstract

Background and Aim: Hairy cell leukemia (HCL) is a rare and indolent B-cell lymphoproliferative disorder that typically responds well to purine analogs such as cladribine. However, relapse is common, prompting investigation into alternative treatment strategies. This study aimed to compare the efficacy of cladribine alone (CLAD) to cladribine combined with rituximab (R-CLAD) in the treatment of HCL.

Materials and Methods: In this retrospective single-center observational study, 60 patients diagnosed with HCL based on the WHO 2008 criteria were treated with either CLAD or R-CLAD. Clinical and laboratory data were collected from medical records and electronic sources. Complete response (CR), minimal residual disease (MRD), relapse rates, and overall survival (OS) were compared between the two groups.

Results: The CR rate at 6 months after treatment was 96.4% in the R-CLAD group and 81.2% in the CLAD group. MRD negativity was observed in 89% of patients in the R-CLAD group and 78% in the CLAD group at 6 months post-treatment. The relapse rate was 10.7% after R-CLAD treatment and 28.1% after CLAD treatment. The mortality rate was lower in the R-CLAD group compared to the CLAD group (3.6% vs 25%). Median OS was not reached in either group, but the 2-year survival rate was 95.2% in the R-CLAD group and 78.1% in the CLAD group.

Conclusion: Our findings suggest that the combination of cladribine and rituximab is more effective in treating HCL than cladribine alone, with higher CR rates, lower relapse rates, and improved survival outcomes. Further research with larger patient cohorts is needed to confirm these results.

Keywords: hairy cell leukemia, cladribine, rituximab, treatment, retrospective study

## EVALUATING THE EFFICACY OF THERAPEUTIC PLASMA EXCHANGE IN THE MANAGEMENT OF HELLP SYNDROME: A SINGLE-CENTER EXPERIENCE

#### İbrahim Halil Açar<sup>1</sup>, Birol Güvenç<sup>1</sup>

<sup>1</sup>Cukurova University Faculty of Medicine, Department of Haematology, Adana, Turkey

Abstract: Introduction and Objectives: HELLP syndrome is a severe pregnancy-related complication characterized by hemolysis, elevated liver enzymes, and low platelet count. Complement dysregulation contributes to the etiopathogenesis of HELLP syndrome. Therapeutic plasma exchange (TPE) removes abnormal complement pathway components and replaces them with normal physiological components. This study aimed to evaluate the impact of TPE on disease progression in HELLP syndrome patients unresponsive to supportive therapy and corticosteroids.

Materials and Methods: This retrospective study involved 13 patients diagnosed with Class 1 HELLP syndrome based on the Mississippi system. These patients underwent TPE in the postpartum period between 2012 and 2015.

Results: Of the thirteen patients, three succumbed to multiorgan failure. After TPE, hemoglobin and platelet counts increased, while AST, ALT, and LDH levels decreased. These changes were statistically significant (p<0.05). In patients who died after TPE, the duration between hospital admission and TPE initiation was longer.

Conclusion: TPE is an effective treatment strategy that improves clinical outcomes in patients with complex postpartum HELLP syndrome who do not respond to conservative management. Early diagnosis and the role of TPE in disease management are increasingly important in such cases.

Keywords: HELLP syndrome, Therapeutic plasma exchange (TPE), Pregnancy-related complication, Complement dysregulation, Disease management

## UNDERSTANDING PHYSICIAN'S APPROACH TO DIAGNOSIS AND TREATMENT OF ACUTE MYELOID LEUKEMIA DISEASE INTÜRKIYE: TURKISH HEMATOLOGY NETWORKING GROUP SURVEY

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Turkish Hematology Networking Group (THNG)<sup>1</sup>, Çukurova University Faculty of Medicine, Division of Hematology<sup>2</sup>, Dokuz Eylül University Faculty of Medicine, Division of Hematology<sup>3</sup>, Karadeniz Technical University Faculty of Medicine, Division of Hematology<sup>4</sup>, SBU Gülhane Training and Research Hospital, Division of Hematology<sup>5</sup>, İstanbul University, İstanbul Faculty of Medicine, Department of Hematology<sup>6</sup>, Türkiye

#### Absract

Background and Objectives: This study is aimed by the Turkish Hematology Network (THNG) to analyze the characteristics of hematologists, their diagnosis, and treatment approaches for acute myeloid leukemia (AML) patients in Turkey. A better understanding of AML diagnosis and treatment approaches in the country, as well as the characteristics of the average AML patient, is essential for improving patient care.

Methods: A survey was conducted among hematologists, collecting data on demographics, general information, diagnostic methods, FLT3 mutation management, prophylaxis, and therapy approaches. Between September 23 and October 3, 2021. 88 hematologists from THNG participated in the study.

Results: The majority of respondents were employed at state-owned university hospitals and had 0-5 years of experience. Istanbul and Ankara were the top two cities where respondents practiced. The distribution of AML patients seen in an average month is 65.94% follow-up patients and 34.06% newly diagnosed patients. Promyelocytic Leukemia (APL) accounts for 10.98% of AML patients at the time of diagnosis in the last year. Diagnostic methods such as bone marrow aspiration/biopsy, flow cytometry, PCR, and conventional karyogram were commonly available. FLT3 mutations were routinely assessed in newly diagnosed and relapsed/refractory AML patients, with FLT3-ITD and NPM1 being the most frequently examined molecular markers. The most common treatment regimens included 7+3 + Midostaurin chemotherapy for fit FLT3-mutated AML patients and hypomethylating agent + Venetoclax for unfit patients. Prophylaxis approaches varied depending on the patient's suitability for induction therapy, with posaconazole, anti-viral, and anti-bacterial medications being the most used. It has been seen that new agents such as The use of innovative treatments like Venetoclax, Gemtuzumab ozogamycin, Gilteritinib, and Glasdegib are more in daily practice.

Conclusion: The findings provide insights into the current practices of hematologists in Turkey, contributing to a better understanding of AML diagnosis and treatment approaches in the country, as well as the characteristics of the average AML patient. These insights can help healthcare professionals, policymakers, and researchers in the field of hematology to improve patient care and outcomes.

Keywords: Acute Myeloid Leukemia, FLT3 mutation, Turkey, Turkish Hematology NetworkingGroup, AML survey

## A SURVEY OF CHRONIC LYMPHOCYTIC LEUKEMIA TREATMENT APPROACHES IN TURKEY: A TURKISH HEMATOLOGY NETWORK GROUP STUDY

**Birol Güvenç**<sup>1,2</sup>, Mehmet Ali Özcan <sup>1,3</sup>, Mehmet Sönmez<sup>1,4</sup>, Mehmet Turgut<sup>1,5</sup>, Ali Ünal<sup>1,6</sup>

Turkish Hematolog Networking Group<sup>1</sup>, Çukurova University Faculty of Medicine, Department of Hematology<sup>2</sup>, Dokuz Eylül University Faculty of Medicine, Division of Hematology<sup>3</sup>, Karadeniz Technical University Faculty of Medicine<sup>4</sup>, Ondokuz Mayıs University Faculty of Medicine, Division of Hematology<sup>5</sup>, Erciyes University Faculty of Medicine, Division of Hematology<sup>6</sup>, Türkiye

#### Abstract

Background: Chronic Lymphocytic Leukemia (CLL) is the most common type of leukemia in adults, with a varied clinical course and treatment landscape. The Turkish Hematology Network Group (THNG) conducted a survey to gather real-world outcomes of CLL treatment approaches in Turkey.

Methods: A total of 79 hematologists participated in the survey, which comprised 34 questions addressing the diagnosis, treatment, and management of CLL patients. The survey aimed to evaluate current practices in Turkey, explore potential regional differences, and assess adherence to international guidelines.

Results: The survey revealed that the majority of respondents (87.3%) were guided by the iwCLL guidelines for CLL management. Fluorescence in situ hybridization (FISH) was the most used technique for cytogenetic testing (93.4%). FCR (Fludarabine, cyclophosphamide, and rituximab) was the preferred first-line treatment (69.7%), followed by BR (Bendamustine and Rituximab) (16.7%). Venetoclax-based regimens were predominantly used for relapsed or refractory CLL (62.3%). Minimal residual disease (MRD) testing was performed by 42.1% of respondents, with a higher rate among university-based physicians. Regional differences in treatment approaches were observed, with FCR use more common in the Marmara region and BR use more common in the Central Anatolia region. Ibrutinib was the preferred treatment for patients with TP53 abnormalities (75.95%). The CLL IPI was used by 44.3% of respondents in their clinical practice.

Conclusion: The THNG survey demonstrates that Turkish hematologists and oncologists largely adhere to international guidelines for CLL management. However, regional variations and gaps in the adoption of certain diagnostic and treatment modalities, such as MRD testing, highlight the need for continuous education and collaboration among healthcare professionals. Further studies are warranted to evaluate the impact of these variations on patient outcomes.

Keywords: Chronic Lymphocytic Leukemia (CLL), Turkish Hematology Network Group (THNG), CLLTreatment, Regional differences Türkiye

## ADDRESSING MULTIPLE MYELOMA IN TURKEY: A NATIONWIDE SURVEY BY THE TURKISH HEMATOLOGY NETWORK GROUP HIGHLIGHTS OPPORTUNITIES AND CHALLENGES

Birol Güvenç<sup>1,2</sup>,Mehmet Ali Özcan<sup>1,3</sup>, Mehmet Turgut<sup>1,4</sup>, Selami Koçak Toprak<sup>1,5</sup>

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#### Abstract:

Background and Objective: Multiple myeloma (MM) is a complicated hematological malignancy characterized by rapidly evolving treatment options and diagnostic methods. This study aimed to explore the current practices, challenges, and unmet needs in diagnosing, treating, and managing MM in Turkey as part of the Turkish Hematology Network Group (THNG) nationwide survey.

Methods: An extensive survey was conducted among adult hematology specialist and minor assistant physicians, focusing on MM diagnosis, treatment options, risk stratification, minimal residual disease (MRD) monitoring, and unmet needs in MM management.

#### Results:

The survey unveiled disparities in diagnostic capabilities across various healthcare settings, highlighting the necessity to address inequalities in access to advanced diagnostic tools. The broad array of treatments used in Turkey underscores the swiftly changing MM treatment landscape; however, uneven availability of novel therapies emphasizes the need for increased efforts to ensure equal access to effective treatments. Risk stratification and MRD monitoring emerged as vital components of MM carein Turkey, consistent with global trends. The survey identified several unmet needs and challenges, such as limited access to advanced diagnostic methods, unequal availability of novel therapies, and the need for enhanced infrastructure for MM patient management.

Conclusion: The THNG's nationwide survey on MM offers valuable insights into the current state of MM care in Turkey and underscores the importance of addressing the identified challenges and disparities. By comparing these findings with existing literature, the survey contributes to ongoing efforts to optimize MM care globally, ultimately resulting in improved outcomes for patients living with this intricate disease.

Keywords : Multiple myeloma , Hematology, Turkish Hematology Network Group, Türkiye, Diagnosisand treatment

## EFFICACY OF BENDAMUSTINE, POMALIDOMIDE, AND DEXAMETHASONE (BPD) REGIMEN IN RELAPSED/REFRACTORY EXTRAMEDULLARY MYELOMA: A RETROSPECTIVE STUDY

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#### **Abstract**

Background: Relapsed/refractory extramedullary myeloma (RR-EMM) is an uncommon and aggressive subtype of multiple myeloma defined by plasma cell proliferation outside the bone marrow. Therapeutic options for RR-EMM are limited, and the prognosis is generally unfavorable. This research aimed to assess the effectiveness of the bendamustine, pomalidomide, and dexamethasone (BPD) regimen in patients with RR-EMM.

Methods: We carried out a retrospective investigation of 11 RR-EMM patients who underwent BPD treatment. We analyzed sociodemographic and clinical features, as well as treatment outcomes, including overall response rate (ORR), progression-free survival (PFS), and overall survival (OS).

Results: The average age of the patients was 62 years. They had a median of 4 prior treatment lines, and 8 patients had previously received autologous stem cell transplantation. After eight BPD treatment cycles, the ORR stood at 54%, with one very good partial response (VGPR), five partial responses (PR), three progressive diseases (PD), and two stable diseases (SD). The two-year survival rate amounted to 82%, and the two-year PFS rate was 71.3%.

Conclusion: The BPD regimen demonstrated promising effectiveness in RR-EMM patients, yielding favorable ORR and survival rates. To corroborate these findings and explore additional treatment alternatives for this patient group, larger, prospective studies are required.

Keywords: relapsed/refractory extramedullary myeloma, bendamustine, pomalidomide, dexamethasone, treatment outcomes, multiple myeloma.