HEMATOLOGY, TRANSFUSION AND CELL THERAPY

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Oral Presentations

Adult Hematology Abstract Categories

Acute Lymphoblastic Leukemia

OP 01_Case report

RISK OF DEVELOPING ONCOHEMATOLOGICAL DISEASES IN INDIVIDUALS INFECTED WITH HEPATITIS C AND B VIRUS

Gunel Alıyeva, Aytan Shirinova

National Center of Hematology and Transfusiology, Vietnam

Objective: There are data in the literature on the possible etiologic role of Hepatitis C Virus (HCV) in the development of some hematological malignancies. However, these studies were heterogeneous, for example, the control groups varied from blood donors to patients with other hematological malignancies and healthy individuals. In addition, most studies included a relatively small number of patients, which did not allow for unambiguous conclusions. Based on the above, the aim of this study was to identify a possible association between hepatitis B, C and hematological malignancies. **Methodology:** 797 patients of the National Center of Hematology and Transfusiology with various forms of malignant blood diseases and positive Hepatitis B (HbAgS) and C (anti-HCV) markers at the time of the diagnosis were analyzed. As a control group were used positive hepatitis B and C blood donors from the Central Blood Bank. The association between malignant blood diseases and infectious hepatitis was estimated using the Relative Risk (RR) and Odds Ratio (OR) with a 95% Confidence Interval. Differences were considered significant at $p < 0.05$. Statistical analysis was performed using SPSS software. **Results:** The study revealed a positive association between a positive anti-HCV status and the risk of developing Non-Hodgkin Lymphoma (NHL) (RR/OR = 11.7/13.3, p = 0), Acute Lymphoblastic Leukemia (ALL) (RR/OR = 6.76/7.22, p = 0), Chronic Lymphoid Leukemia (CLL) (RR/OR = 5.9/6.24, p = 0), Multiple Myeloma (MM) (RR/OR = 3.94/4.08, p = 0.008752) and Acute Myeloid Leukemia (AML) (RR/OR = 4.7/4.91, p = 0.000001). In cases of Myeloproliferative Neoplasms (MPN), a statistically significant association could not be determined. Hepatitis B was statistically significantly associated with NHL (RR/OR = 5.27/5.56, p = 0.000465), CLL (RR/OR = 5.31/5.61, p = 0.000001), MM (RR/OR = 5.31/5.61, p = 0.000001) and MPN (RR/OR = 4.3/4.48, p = 0.000570). **Conclusion:** Thus, it can be concluded that hepatitis C and B viruses may play a role in the development of some hematological malignancies, such as leukemia and lymphoma. HBV can contribute to the development of hematological malignancies by changing cell proliferation and causing chronic inflammation, which can disrupt the normal functioning of the immune system. Also, chronic inflammation activates cytokines and growth factors that can increase the risk of cell mutation, which in turn leads to the development of malignant tumors.

https://doi.org/10.1016/j.htct.2025.103916

OP 02_Case report

LONG-TERM AND LATE EFFECTS OF CHEMOTHERAPY IN CHILDHOOD ACLEUKEMIA AND THEIR MANAGEMENT SINGLE INSTITUTION OBSERVATIONUTE LYMPHOBLASTIC

Konul Baghirova

Azerbaijan National Center of Hematology and Transfusiology, Azerbaijan

Introduction: Acute Lymphoblastic Leukemia (ALL) remains the most common malignant disease of childhood, accounting for approximately 26% of pediatric oncology

diagnoses. Modern treatment approaches, particularly multi-agent chemotherapy regimens such as the BFM protocol, have significantly improved 5-year survival rates, reaching up to 96%. However, the toxicity of chemotherapy regimens, particularly late effects, negatively impacts long-term quality of life and clinical outcomes. These adverse effects include cardiotoxicity, secondary malignancies, endocrine dysfunction, and neurological damage. Given the limitations of conventional treatment protocols, exploring less toxic and more effective therapeutic strategies is of critical importance.

Objective:

- To identify the late effects of chemotherapy in pediatric patients treated for ALL.
- To propose effective strategies for the early detection and management of these effects.
- To compare the BFM protocol applied in Azerbaijan with international experiences.

Materials and methods: This study includes 120 pediatric patients diagnosed with ALL and treated at the National Hematology Center of Azerbaijan between 2020 and 2023. A retrospective analysis of patient records was conducted. The evaluation of late chemotherapy effects was performed using internationally standardized methodologies:

- Cardiotoxicity: Echocardiography and pro-BNP biomarker measurements.
- Neurotoxicity: Clinical neurological assessment and electrophysiological testing.
- Endocrine dysfunction: Thyroid function tests, insulin resistance evaluation, and growth hormone monitoring.
- Secondary malignancies: Long-term follow-up and biomolecular analyses.

Results: Among the analyzed patients, 38% exhibited various late-onset adverse effects. The incidence rates of key toxicity types were as follows: **Conclusion:** This study demonstrates the significant late effects of chemotherapy in pediatric patients treated with the BFM protocol in Azerbaijan. The findings emphasize the importance of implementing routine monitoring mechanisms, particularly for cardiotoxicity and endocrine dysfunction. International literature suggests that incorporating novel therapeutic agents, such as CAR-T cell therapy and targeted therapies like blinatumomab, into treatment regimens may improve clinical outcomes.

Toxicity Type	Incidence Rate (%)
Cardiotoxicity	12%
Neurotoxicity	11%
Endocrine Dysfunction	25%

https://doi.org/10.1016/j.htct.2025.103917

Adult Hematology Abstract Categories

Acute myeloid leukemia

OP 03_Case report

REAL WORLD OUTCOMES OF HYPOMETHYLATING AGENTS AND VENETOCLAX COMBINATION THERAPY IN ACUTE MYELOID LEUKEMIA AND MYELODYSPLASTIC SYNDROME- SINGLE CENTER EXPERIENCE FROM A RESOURCE LIMITED COUNTRY

Maryam Khan

Armed Forces Bone Marrow Transplant Centre, Pakistan

Objective: In this study, we aim to evaluate the safety, efficacy and response rates of venetoclax and HMA combination therapy in patients with AML and MDS. This study provides outcomes from a tertiary care center in Pakistan, giving insights into the outcomes and impact of this therapeutic regimen in a resource-limited country. **Methodology:** We conducted a retrospective analysis on 96 patients of which 54 patients had AML and 42 had MDS. All the patients received venetoclax combined with HMA at a single center from January 2020 to December 2024. The primary outcomes measured for AML were Overall Survival (OS), Progression Free Survival (PFS) and response rates (Complete Remission [CR], Partial Remission [PR], Stable Disease [SD] and No Response [NR]) while for MDS response was assessed as per IWG criteria. **Results:** AML cohort (n = 54) had a male-to-female ratio of 2:1, median age of 52 (IQR:37–62.2). Risk stratification showed good risk in 3 (5.6%), intermediate in 37 (68.5%) and poor risk in 14 (25.9%) patients. Treatment was given in first line in 41 (75.9%). Indications for first line treatment were age or frailty in 27 (50%), infections in 3 (3.9%) and cardiotoxicity in 2 (3.8%). Total 44 (81.5%) patients received azacytidine and 10 (18.5%) decitabine. Overall Response Rate (ORR) after cycle 1, cycle 2 and EOT was 26 (48.1%), 34 (63%) and 36 (66.7%), CR rate was 15 (27.8%), 27 (50%) and 30 (55.6%) respectively. High dose cytarabine consolidation and venetoclax maintenance were given to 5 (9.3%) and 10 (18.5%) patients respectively. Seven (12.9%) patients underwent HSCT of which 5 (71.4%) received allogenic, 1 haploidentical and 1 received autologous transplant (28.5%). ORR at last follow-up was 27 (50%) of which 24 (88.8%) had CR and 3 (11.1) had CRi. There was no response in 14 (25.9%) and disease relapse in 10 (18.5%) patients. The OS of AML cohort was 77.4% with median 1250 survival days (95% CI 139–2360) and DFS was 52.8% with median survival 438 days (95% CI 65–761). The MDS cohort (n = 42) had a male-to-female ratio 9.5:1 with 51-years median age (IQR: 36.5–57.5). Genetic mutations were present in 3 (7.3%) of which TP53 mutation, del7q were

present in 1 each whereas 1 patient had ASXL1, TET2 EZH2, RUNX1 and STAG2 mutations. The median R-IPSS and IPSS scores were 5 (IQR: 4.2–6) and 1.5 (IQR: 0.75–2) respectively. Thirty-one (73.8%) patients received azacytidine and 11 (26.2%) decitabine. ORR at cycle 1, cycle 2 and EOT was 12 (28.6%), 21 (51.2%), 18 (42.9%) with CR rates of 2 (4.8%), 11 (26.2%) and 11 (26.2%) respectively. Febrile neutropenia was observed in 23 (54.8%) and cycles were interrupted due to cytopenia's in 23 (54.8%) patients. Seven (17.1%) patients received allogenic HSCT and 2 (4.9%) received haploidentical HSCT. Five (12.2%) patients received venetoclax maintenance. Eight (21.1%) patients had disease relapse. The OS of MDS cohort was 59.5% with median 907 survival days (95% CI 386–1424) and The DFS was 44.4% with median survival 528 days (95% CI 336–719). **Conclusion:** Venetoclax in combination with HMA represents an effective therapeutic strategy for AML and MDS in the real-world setting, even in resource limited settings.

https://doi.org/10.1016/j.htct.2025.103918

OP 04_Case report

THE ROAD NOT-TAKEN: EXPLORING NON-TRANSPLANT OPTIONS IN DE NOVO PHILADELPHIA - POSITIVE ACUTE MYELOID LEUKEMIA

Mohamed Sharif, Mansour Alfayez

Department of Hematology, Stem Cell Transplant and Cellular Therapy, Oncology Centre, King Faisal Specialist Hospital and Research Centre, Riyadh, Saudi Arabia

Background: Philadelphia chromosome-positive acute myeloid leukemia (Ph+AML) is a rare and aggressive subtype of AML, characterized by the BCR::ABL1 fusion gene. It has historically been considered a high-risk leukemia, with allogeneic Hematopoietic Cell Transplant (HCT) recommended in the first remission. However, the emergence of targeted therapies, particularly potent Tyrosine Kinase Inhibitors (TKIs), has led to reconsideration of this approach. Drawing from advances in Philadelphia-positive acute lymphoblastic leukemia (Ph+ALL), where HCT omission has been explored successfully, this study examines whether a similar strategy can be applied in select Ph+AML cases. **Objective:** To evaluate the feasibility of a non-HCT approach in Ph+AML by analyzing a case where transplant was omitted, and the patient achieved sustained remission. **Methods:** We present a case of a 30-year-old male diagnosed with de novo Ph+AML, identified through cytogenetics and molecular testing. The patient received induction chemotherapy with cytarabine and anthracycline (3+7) along with a TKI. Due to complications, his initial TKI was switched to ponatinib, and consolidation therapy consisted of azacytidine, venetoclax, and ponatinib. Disease monitoring was performed using quantitative Polymerase Chain Reaction (qPCR) for BCR::ABL1 and Next-Generation Sequencing (NGS). **Results:** The patient achieved a complete Molecular Response (MR 4.5) after the first cycle of consolidation therapy. Over 12-cycles of treatment, he maintained MRD negativity without emerging mutations. At 30-months post-diagnosis, he remains in sustained remission without undergoing HCT. Key factors that may have contributed to his favorable outcome include the absence of additional cytogenetic abnormalities, early achievement of deep molecular remission, and the use of a third generation TKI with activity against T315I mutations. **Conclusion:** This case suggests that a transplant-free approach may be a viable option for select patients with Ph+AML. While HCT remains the standard of care, the use of targeted therapies such as ponatinib in combination with venetoclax and azacytidine may provide an alternative pathway to long-term remission. Further studies are needed to validate patient selection criteria and assess long-term efficacy and safety of this approach.

https://doi.org/10.1016/j.htct.2025.103919

Adult Hematology Abstract Categories

Cellular therapy

OP 05_Case report

CORRELATION OF CD10+ B-LYMPHOCYTES AND PLASMA CELLS WITH OUTCOME IN BREAST CANCER

Svetlana Chulkova [a,b]

[a] *FSBU "N.N. Blokhin National Medical Research Center of Oncology" of the Russian Ministry of Health, Moscow, Russia*
[b] *Pirogov N.I. Russian National Research Medical University of the Russian Ministry of Health, Moscow, Russia*

Objective: Bone Marrow (BM) is poorly understood from the point of view of the prognostic role of hematopoietic cells and subpopulations of lymphocytes in patients with Breast Cancer (BC). In recent years, more attention has been paid to the study of the innate immune system, which includes B-lymphocytes. They produce IgM antibodies, which play an important role in the induction of apoptosis. **Methodology:** Study was carried out in 107 BC patients' stage I–II. Adjuvant chemotherapy – 65.4% of patients, radiation therapy – 49.8%, hormone therapy – 84% of patients. Her2/neu"-" 80%, Her2/neu"+"-18%, TNBC-12%. The duration of the follow-up period after surgery was 8-years. Multiparameter flow cytometry was used, FACSCANTO II. Studies of BM lymphocyte subpopulations were carried out in the gate of CD45++ cells: CD19, CD20, CD5, CD38, CD10, CD45, HLA-DR, CD27. Radical resection -38.3% of patients, mastectomy – 59.7%. **Results:** B1-cells was higher in B-Her2"+", stage IIA, with 2 affected lymph nodes. B1-cells correlated with plasma cells. The total percentage of B-cells in BM was significantly associated with the prognosis of BC. B1 cells were associated with progression-free and disease-free survival. Disease progression was observed at low levels of B1 cells. In cases more than 10% B-lymphocytes in the BM of BC patients' Overall Survival (OS)

rates were more favorable (p = 0.01). Especially for BC with a high Ki-67. Disease progression was observed in 1/3 of BC patients with low levels of B1 cells. CD38 expression on B-cells was a prognostically favorable factor: the role is realized during 5–10-years of follow-up after surgery. Level CD38+ B-cells more than 10% correlated with high OS (p = 0.02). The presence of CD10+CD19+ B-lineage precursors was associated with a more favorable prognosis (OS, the threshold level 12%, $p = 0.04$). The prognostic role of the CD10 antigen was realized when patients were observed for more than 5-years. **Conclusion:** Total relative number of (more than 10%) of BM CD19+ cells were significantly related to OS in BC. B-cell precursors and CD38+ B-cells were associated with favorable prognosis. Prognostic role of B-lineage precursors and CD38- positive cells was in the periods of 5–10 years after surgery.

https://doi.org/10.1016/j.htct.2025.103920

OP 06_Case report

NEURON SPECIFIC ENOLASE POSITIVE OVARIAN INTERMEDIATE GRADE SERTOLI LEYDIG CELL TUMOR: A RARE CASE REPORT

Şule Çalişkan Kamiş, Elife Aşut, Begül Yağci

Adana City Education and Research Hospital, Turkey

Objective: Ovarian Sertoli-Leydig Cell Tumors (SLCTs) are rare sex cord-stromal tumors, accounting for less than 0.5% of all primary ovarian tumors. They are most commonly diagnosed in adolescents and young women and can present with a variety of symptoms, including abdominal pain, a palpable mass, and, in some cases, signs of hormonal imbalance. While tumor markers such as Cancer Antigen-125 (CA-125) may be elevated, Neuron-Specific Enolase (NSE) is not typically associated with these tumors. **Results:** A 14-year-old girl presented with diffuse abdominal pain and sudden abdominal distension. Laboratory tests revealed elevated CA-125 (65.3 U/mL, normal: 0–35 U/mL) and NSE (13.7 μg/L, normal: 0–12.4 μg/L). Imaging studies, including transabdominal pelvic ultrasound and abdominal Computed Tomography (CT), demonstrated a large, 23 cm right ovarian mass with predominantly solid but focal cystic components, raising suspicion for malignancy. Given the tumor's size and characteristics, a fertility-sparing right salpingo-oophorectomy and paravertebral retroperitoneal lymph node biopsies were performed. Histopathological examination confirmed an intermediate-grade Sertoli-Leydig cell tumor with frequent mitotic figures but no necrosis. **Conclusion:** This case is notable as the first reported instance of an SLCT associated with elevated serum NSE levels. While NSE is primarily considered a marker for neuroendocrine tumors and small cell lung carcinoma, its elevation in this case raises questions about its potential role in SLCTs. This finding suggests a need for further research to determine whether NSE could serve as a useful biomarker in the diagnosis or monitoring of SLCTs. Given the rarity of these tumors and the limited data on their tumor marker profiles, additional studies are needed to explore the clinical significance of NSE elevation in SLCTs.

https://doi.org/10.1016/j.htct.2025.103921

OP 07_Case report

POLYRADICULOPATHY FOLLOWING CAR T-CELL THERAPY FOR LYMPHOID MALIGNANCIES, DIAGNOSTIC CHALLENGES: A REPORT OF 3 CASES

Alfadil Haroon, Nawaf Aldawsari, Naeem Chaudhri, Ali Alahmari, Mahmoud Aljurf, Syed O Ahmed, Abdulwahab Albabtain

Adult Hematology, stem cell transplant and cellular therapy, King Faisal Specialist Hospital and Research Center, Riyadh, Saudi Arabia

Objective: Neurotoxicity is a serious but incompletely understood complication of CAR T-cell therapy. here we highlight presentation and diagnostic challenges of non-CNS CAR T-cell therapy complication. **Case series:** *Case 1:* A 43-year-old female with relapsed DLBCL stage IVB without CNS involvement underwent Axi-Cel CAR T-cell therapy, developing grade I CRS responded to tocilizumab. On day +15, developed diplopia and 6th nerve palsy MRI suggestive CNS lymphomatous infiltration, managed with dexamethasone and intrathecal MTX with a PET scan on day 30 showing CMR. Subsequently, she had limbs weakness with EMG/NCS confirming polyradiculopathy CSF showing high protein but negative for infection, malignant cells and autoimmune. Treatment included methylprednisolone, plasmapheresis, and IVIG, leading to slight improvement. Day 60 PET-CT revealed cervical and lumbar nerve roots neuritis, and by day 90, biopsy-confirmed disease relapse. She had partial response to glofitamab, unfortunately, she passed away four months post-CAR T-cell therapy. *Case 2:* A 38-year-old male with primary refractory stage III DLBCL received Axi-Cel after lymphodepletion with Flu/Cy. On day +1, grade I CRS developed and was treated with tocilizumab and dexamethasone. By day +4, he exhibited ICANS grade IV with confusion and seizures, managed with methylprednisolone, anakinra, and lorazepam. CSF showed high protein but no infection or malignant cells. MRI suggested viral encephalitis, and acyclovir was started. Extubated on day +8, but showed lower limb weakness (0/5 power) and urinary retention. Spinal MRI showed intramedullary T2 changes. IVIG was given on day +11, and physical therapy started. By day +16, he could stand; MRI normalized by day +29. PET-CT on day +32 showed a very good partial response. The patient was able to walk and discharged on day +39 with ongoing recovery. *Case 3:* A 36-year-old male with CML transformed to B-cell ALL with CNS involvement refractory to triple IT chemotherapy received IT thiotepa, complicating with lower limb weakness and sphincter loss. NCS confirmed L5 radiculopathy; MRI and CSF were negative for blasts or CNS disease. Post-Brexu-cel infusion (day +5 to +7), he developed CRS grade I, treated with

Tocilizumab, followed by worsening lower limb weakness and sensory loss. MRI revealed new cauda equina leptomeningeal enhancement; NCS confirmed bilateral polyradiculopathy. CSF showed high protein but no blasts or infections. IVIG, methylprednisolone, anakinra and IT MTX-hydrocortisone improved symptoms. MRD assessment on day +30 was negative repeated MRI brain and spine showed resolution of leptomeningeal enhancement. **Conclusion:** With the increasing use of CAR T-cell therapy, rare side effects, such as sensory-motor polyradiculopathy, are emerging. These cases underscore the challenges of diagnosing and managing non-CNS neurotoxicity. Early recognition, tailored interventions, and multidisciplinary care are vital, while further research is needed to better understand mechanisms and improve patients' outcomes.

https://doi.org/10.1016/j.htct.2025.103922

Adult Hematology Abstract Categories

Aggressive B-cell lymphoma

OP 08_Case report

PRIMARY ADRENAL AND FEMALE GENITAL EXTRANODAL LYMPHOMAS

Müzeyyen Aslı Ergözoğlu [a], Berksoy Şahin [a], Tuğba Toyran [a], Nisa Aliş [b]

[a] *Cukurova University, Adana, Turkey*
[b] *Aydın Üniversitesi, Istambu, Turkey*

Objective: The extranodal lymphomas generally account for 25%–40% of all lymphoma cases, with rare types such as primary breast lymphoma accounting for 0.1%–0.5%, female genital system lymphomas for 0.5%–1%, and adrenal lymphomas for about 1%. The diagnosis, treatment, and prognosis of these rare lymphomas are different. As Çukurova University Faculty of Medicine, we conducted a retrospective study on rare extranodal lymphomas. **Methodology:** The file data from the Cancer Registry of the Chief Physician's Office was reviewed for the period between 2003 and 2025. Among a total of 3067 lymphoma patients, 25 cases of primary adrenal, female genital, or breast lymphoma were included in the study. Demographic data were documented, and survival duration was calculated. Parameters affecting survival were identified using SPSS. The average age of the patients was 45, with 20% being male and 80% being female. The average age of the men was 61, while the average age of the women was 41. **Results:** Among all lymphoma patients, 632 (20.6%) had extranodal lymphoma. In 25 patients (0.8%), primary adrenal, female genital, and breast lymphomas were detected. The primary adrenal lymphoma was found in 7 patients (28%), female genital lymphoma in 8 patients (32%), and breast lymphoma in 10 patients (40%). Of these, 92% were Non-Hodgkin Lymphoma (NHL), with Diffuse large B-Cell Lymphoma (DLBCL) being the most common (48%). Burkitt lymphoma was observed with a frequency of 12% as the second most common type. All of the breast lymphoma patients were female, with an average age of 31. The second most frequent group, primary female genital lymphoma patients, had an average age of 49, and the most commonly affected organ was the ovary (16%). Compared to the literature, our patients were younger. The median survival for female genital system lymphoma patients was not reached, while the median survival for breast and adrenal lymphoma patients was 49 and 62, respectively. **Conclusion:** Although we have extensive experience in the management and treatment of primary extranodal lymphomas, a standard treatment approach has not yet been established for rare primary lymphomas. With this study, we aimed to contribute to raising awareness on this issue. In the future, we plan to collect real-world data on rare primary extranodal lymphomas in Turkey to create national data.

https://doi.org/10.1016/j.htct.2025.103923

Adult Hematology Abstract Categories

Myelodysplastic neoplasms

OP 09_Case report

EFFICACY OF ROXADUSTAT IN CHRONIC KIDNEY DISEASE PATIENTS NOT ON DIALYSIS WITH ANEMIA: SYSTEMATIC REVIEW AND META-ANALYSIS OF RANDOMIZED CONTROLLED TRIALS

Lokman Hekim Tanriverdi [a], Ayşe Uysal [b], Arzu Akyay [c], Yurday Öncül [c], Ahmet Sarici [d]

[a] *Department of Medical Pharmacology, İnönü University, Faculty of Medicine, Malatya, Turkey*

[b] Division of Hematology, Firat University, Faculty of Medicine, Elazığ, Turkey
[c] Division of Pediatric Hematology and Oncology, İnönü University, Faculty of Medicine, Malatya, Turkey
[d] Division of Hematology, İnönü University, Faculty of Medicine, Malatya, Turkey

Objective: Anemia is a common complication in patients with Chronic Kidney Disease (CKD), particularly in those not receiving dialysis. Roxadustat, a Hypoxia-Inducible Factor Prolyl Hydroxylase Inhibitor (HIF-PHI), has been investigated as a therapeutic option for anemia management in this population. This study aimed to evaluate the efficacy of Roxadustat compared to control interventions in Non-Dialysis-Dependent CKD (NDD-CKD) patients. **Methodology:** A comprehensive literature search was conducted in Cochrane CENTRAL, Ovid Medline, PubMed, and Web of Science up to December 14, 2024. Randomized Controlled Trials (RCTs) directly comparing Roxadustat with a control group were included. Data were pooled using an inverse variance-weighted random-effects model. The primary efficacy outcome was the change in Hemoglobin (Hb) levels at weeks 24–28 and during follow-up. Subgroup analyses were performed based on the type of control intervention (Erythropoiesis-Stimulating Agents [ESAs] vs. placebo) and prior ESA use. **Results:** A total of six RCTs, including 5,330 patients, from 520 unique records from the databases were included. Roxadustat significantly increased Hb levels during follow-up compared to the control group (Mean Difference [MD = 1.21 g/dL], 95% confidence interval [95% CI 0.45 to 1.97], $I^2 = 99\%$, $p = 0.0017$). However, at weeks 24–28, the increase in Hb levels was not statistically significant (MD = 0.86 g/dL, 95% CI -0.11 to 1.83, $I^2 = 99.4\%$, $p = 0.0833$). Iron-related parameters showed mixed results. Roxadustat was associated with a significant reduction in ferritin levels (MD = -38.54 ng/mL, 95% CI -68.21 to -8.87, $I^2 = 84.1\%$, $p = 0.0109$). Conversely, Total Iron-Binding Capacity (TIBC) was significantly increased with Roxadustat treatment (MD = 20.33 μg/dL, 95% CI 1.15 to 39.51, $I^2 = 98.5\%$, $p = 0.0377$). No significant difference was observed in serum iron (MD = 3.1 μg/dL, 95% CI -0.39 to 6.6, $I^2 = 93.1\%$, $p = 0.0820$) and Transferrin Saturation (TSAT) levels (MD = -1.08%, 95% CI -2.42 to 0.26, $I^2 = 40.1\%$, $p = 0.1151$) between the two groups. Subgroup analyses revealed that in placebo-controlled trials, Roxadustat significantly increased Hb levels at both weeks 24–28 and during follow-up. However, in trials comparing Roxadustat with ESAs, the changes in Hb levels were not significant at either time point. **Conclusion:** Roxadustat reduced ferritin but increased TIBC without significantly affecting free iron and TSAT levels compared to the control group in patients with NDD-CKD.

https://doi.org/10.1016/j.htct.2025.103924

Adult Hematology Abstract Categories

Myeloproliferative Neoplasms

OP 10

Genetic profile of primary myelofibrosis patients in Azerbaijan

Elmir Guluyev [1], Madad Abbasov [1,*], Gulnar Garayeva [2], Azer Kerimov [2]

[1] Main Clinical Hospital of the Ministry of Defense of Azerbaijan
[2] Natonal Hematology and Transfusiology Center

Objective: Primary myelofibrosis is a clonal myeloproliferative neoplasm characterized by atypical myeloid proliferation and significant symptom burden. Activation of the Jak-STAT signaling pathway plays a central role in the pathogenesis of this disease. Approximately 90% of patients have one of three genetic mutations: Jak2V17F, CALR and MPL. The Jak2V617F mutation is the most common mutation and has been found in 60%–65% of patients. Last year in SOHO 2024 annual meeting we first demonstrated genetic mutations of primary myelofibrosis patients in Azerbaijan. However, in our study only a small number of patients underwent genetic testing. Here we have updated the data of our cohort. The main goal of our study was to know the genetic profile of primary myelofibrosis patients in Azerbaijan. **Methodology:** We retrospectively analyzed 123 patients with primary myelofibrosis who underwent genetic testing. We created 2 groups according to JAK2 levels. Group comparability was assessed by comparing baseline demographics and follow-up time between groups. Normality and heteroscedasticity of continuous data were assessed using the Shapiro-Wilk and Levene tests, respectively. Continuous outcomes were compared using unpaired Student *t*-test, Welch *t*-test or Mann-Whitney *U* test, depending on the data distribution. Discrete outcomes were compared using Chi-Squared or Fisher's exact test, respectively. The alpha risk was set at 5% and two-tailed tests were used. **Results:** A total of 123 patients underwent genetic testing. Jak2V617F was positive in 91 (74%), CALR was positive in 3 (2.4%), MPL was positive in 1 (0.8%) patient. 32 (26%) patients were Jak2 negative. The median allele burden was 68.21% (IQR = 46.16). Median age was 58.5-years, 58 (47.2%) patients were male. We separated patients to groups according to Jak2 mutations and compared their clinical laboratory characteristics (Table 1). There was no difference between two groups according to IPSS: Low – 27 (31.03%), INT1 – 42 (48.28%), INT2 – 17 (19.54%), High – 1 (1.15%) in Jak2 positive (n = 87) vs. Negative (n = 31) Low – 11 (35.48%), INT1 – 12 (38.71%), INT2 – 7 (22.58%), High – 1 (3.23%). Jak2V617F positivity was significantly associated

with higher Hgb (p = -0.022), WBC (0.029), higher ANC (p = -0.008), higher eosinophil count (p = -0.03) and lower bone marrow blast count (p = -0.022). Jak2V617F positivity was also associated with lower LDH, lower TSS and higher PLT count, but this was not statistically significant. The splenomegaly rate didn't differ between groups (Jak2 positive – 94.44% and Jak2 negative – 84.62%; p = 0.203). Median follow-up was 34.61-months. Although statistically insignificant, Jak2V617F negative patients seems to have better OS than Jak2V617F positive patients (p = -0.644). Median OS didn't reach in Jak2 negative group vs. 155-months in Jak2 group (Fig. 1). **Conclusion:** Comparison of clinical and laboratory data between Jak2 positive and negative groups in patients with primary myelofibrosis in Azerbaijan has been performed. In our cohort, Jak2V617F positive have significantly higher Hgb, Wbc, ANC, bone marrow blast and eosinophil counts, also higher PLT, lower LDH and Total Symptom burden (TSS), but it's not statistically significant. Similar to our study, article by Vannucchi A.M and colleagues published in the journal Leukemia in 2008, the authors showed that JAK2 V617F mutations in PMF are associated with older age, higher HB level, leukocytosis, and lower platelet count.[1] How Jak2V617F mutation affects the OS in PMF remains controversial. Although it's not statistically significant, we found that Jak2V617F negative patients have a better median OS than positive patients in our cohort. Unlike this, in a multicenter study of 152 patients, Campbell PJ et. al. showed that in PMF, the presence of JAK2V617F was associated with inferior survival despite the fact that mutated patients were less likely to require red blood cell transfusions during follow-up.[2] On the contrary, in a series of 117 PMF patients from a single center, Tefferi et al. reported no significant impact of V617F presence on either survival or leukemic transformation.[3] But we didn't have the exact rate of the CALR and the MPL mutation rate in the Jak2-negative group in our cohort, so we didn't know how this mutation was affecting our study results. So the small number of patients in the comparison groups and the lack of testing for ASXL1, lower number of CALR, MPL mutation is a limitation of our study. There is a need for prospective, large studies with comprehensive genetic testing to learn exactly how genetic mutations affect survival in our PMF patients.

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Table 1 Patient characteristics.

Variable	Jak2V617F positive (n = 91)	Jak2V617F (n = 32)	p-value
Age	58.0 (IQR = 14.0)	54.0 (IQR = 13.5)	0.527
Gender			0.25
Male	40 (43.96%)	18 (58.06%)	
Female	51 (56.04%)	13 (41.94%)	
Stage	n = 74	n = 25	>0.801
Pre-PMF	21 (28.38%)	8 (32.0%)	
Overt PMF	53 (71.62%)	17 (68.0%)	
Bone marrow blast	0.2 (IQR 0.8)	0.4 (IQR 0.8)	0.022
Hgb × 10^9/L	12.4 (IQR 4.4)	10.8 (4)	0.016
WBC × 10^9/L	15.15 (IQR 15.0)	11.42 (IQR 10.25)	0.029
ANC × 10^9/L	10.81 (IQR 11.57)	7.39 (IQR 6.7)	0.008
ALC × 10^9/L	2.08 (IQR 1.24)	1.96 (IQR 1.32)	0.25
PLT × 10^9/L	438.0 (IQR 404.0)	366.0 (IQR 525.5)	0.778
LDH U/L	478.15 (IQR 478.0)	515.0 (IQR 267.0)	0.846
Eosinophil × 10^9/L	0.3 (IQR 0.6)	0.15 (IQR 0.28)	0.03
Basophil × 10^9/L	0.02 (IQR 0.16)	0.007 (IQR 0.068)	0.363
Spleen size, cm	18.85 (IQR 4.6), n = 72	18.4 (4.98), n = 26	0.645
Liver size, cm	15.85 (IQR 2.45), n = 72	16.35 (IQR 2.85), n = 26	0.156
MPN TSS, initial	5.0 (IQR 10.0), n = 9	11.0 (IQR 13.5), n = 31	0.347

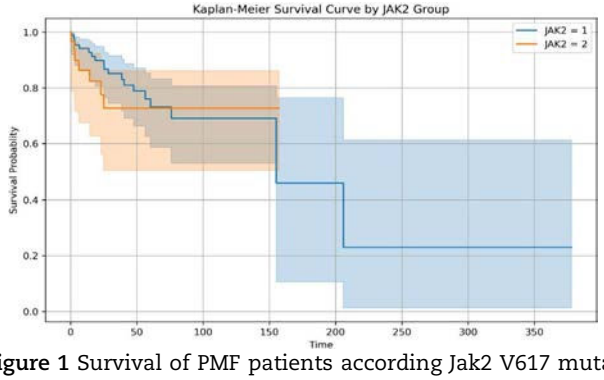

Figure 1 Survival of PMF patients according Jak2 V617 mutational status.

https://doi.org/10.1016/j.htct.2025.103925

OP 11_Case report

TREATMENT OF BLAST PHASE MYELOPROLIFERATIVE NEOPLASM WITH THE COMBINATION OF AZACITIDINE, VENETOCLAX AND RUXOLITINIB

Fidan Khalilova, Azer Kerimov, Gulnar Kerimova

National Center of Hematology and Blood Transfusion, Vietnam

Objective: In the development of Myeloproliferative Neoplasm (MPN), transformation to the Blast Phase (BP) is often noted. Thus, the incidence of BP in Primary Myelofibrosis (PMF) is -9%–13%, in Essential Thrombocythemia (ET) -1%–4%, and in Polycythemia Vera (PV) -3%–7%. As a result of the development of ET and PV, transformation to Myelofibrosis (MF) can also be noted. In this case, differentiation of PMF from post-ET-MF and post-PV-MF can be difficult. In the treatment of these diseases, an individual approach according to the history and comorbidity, increases the effectiveness of treatment. **Methodology:** Patient U.T., born in 1955, was registered at the NCHBT in June 2019 with a diagnosis of PMF. At

the time of initial admission, the patient complained of abdominal distension and severe weight loss over the past 6-months. During examinations, a splenomegaly (204 × 85 mm) was found. In hemogram: Hb – 151 g/L, WBC – 43 × 10^9/L, PLT – 779 × 10^9/L were. Histological examination of the bone marrow revealed that the bone cavities were filled with fibrotic stroma, no fat cells were detected. Hematopoietic cells were diffusely scattered, the cellular composition consisted of granulocytic and megakaryocytic orders. A reduction in the erythroid order was noted. The number of megakaryocytes was increased, acute polymorphism was noted, atypical forms were abundant. Megakaryocytes formed dense and sparse clumps (up to 6-cells) and layers, their paratrabecular localization was noted. Areas of coarse-fiber collagen fibrosis were noted. During molecular genetic examination, the allelic load of the JAK2V617F mutation was 92.694%. The patient was treated with Hydrea (HY)from June 2019 to September 2019. Since the hemogram did not show positive dynamics, Interferon (IFN) 3 million units was administered intramuscularly 3 times a week from September 2019. After this administration, a relative decrease in spleen size was noted. Starting from March 2020, the patient's condition deteriorated again. In hemogram: Hb – 161 g/L, WBC – 34 × 10^9/L, PLT – 343 × 10^9/L were. The spleen size was 200 × 84 mm on Ultrasound Scan (USS). The patient was prescribed HY 1000 mg p/day along with IFN. Positive dynamics were achieved as a result of treatment with HY+IFN. Hemogram: Hb – 120 g/L, WBC – 4 × 10^9/L, PLT – 476 × 10^9/L; spleen in palpation was +4 cm. Treatment with HY+IFN was continued until April 2021. From April 2021, treatment was continued with HY alone. In May 2024, the patient's condition worsened. Morphological examination of the bone marrow showed 16% blasts, histological examination showed 20% blasts, blasts were of myeloid type. Transformation of the disease to the BP was recorded. The patient was prescribed 2 courses of low-dose Cytosar. Since no positive dynamics were noted and blasts in the bone marrow increased to 78.6%, treatment with Azacitidine (AZA) + Venetoclax (VEN) was initiated in July, and after the 2nd course, clinical-hematological remission was recorded (blasts on myelogram were 0.8%). Although the patient's hemogram and bone marrow results showed Morphological Leukaemia-Free State (MLFS), Ruxolitinib (RUX) 15 mg was added to the treatment with AZA+VEN as a result of the recent sharp increase in spleen size (197 × 78 mm) and abdominal discomfort. As a result of the treatment, the patient's spleen size decreased, abdominal discomfort disappeared. During the examination of the patient, a complete blood count and histological examination of the bone marrow were performed. To confirm myelofibrosis, reticulin stroma examination was performed using the Gomori method, and first- and second-degree fibrosis (M1–MF2) was detected (scale 0–3). In assessment with the Dynamic International Prognostic Scoring System (DIPSS)-2 points-intermediate-1 risk group was formed. The patient's complaints were assessed with Myeloproliferative Neoplasm Symptom Assessment Form Total Symptom Score (MPN-SAF-TSS). Molecular-genetic examination of the JAK2V617F gene was performed using the real-time PCR method of peripheral blood. Spleen size was assessed with USS. AZA was prescribed subcutaneously at a dose of 100 mg for 7 days per course. 6 courses have been conducted so far. VEN was increased according to the scheme and prescribed at a dose of 400 mg; depending on cytopenia's, the dose was reduced by 200 mg, and the number of days of administration varied from 28 to 14 days. RUX was prescribed at a dose of 15 mg daily. **Results:** After transformation of PMF to BP, the patient did not achieve remission despite 2 courses of low dose cytosar treatment. After treatment with AZA+VEN, the patient achieved MLFS. After some time, due to the growth of the spleen, RUX was added to the AZA+VEN treatment protocol, and the spleen's size decreased. **Conclusion:** The use of the AZA+VEN protocol was effective in BP-MF. The subsequent addition of RUX to the treatment further increased the effectiveness of the treatment and led to an improvement in the patient's general condition and a decrease in complaints.

https://doi.org/10.1016/j.htct.2025.103926

Adult Hematology Abstract Categories

Multiple myeloma

OP 12_Case report

PROGNOSTIC IMPLICATIONS OF HIGH-RISK GENETIC MUTATIONS IN MULTIPLE MYELOMA PATIENTS UNDERGOING SECOND AUTOLOGOUS STEM CELL TRANSPLANT

Taner Tan, Ahmet Umur Topcu, Ümit Barbaros Üre, Emre Osmanbasoglu, Sinem Civriz Bozdağ, Olga Meltem Akay

Koç University Hospital, Istambu, Turquia

Objective: High-risk genetic mutations significantly influence prognosis in multiple myeloma. Although autologous Hematopoietic Stem Cell Transplantation (auto-HSCT) is a cornerstone of multiple myeloma treatment, the prognostic impact of genetic abnormalities in patients undergoing a second auto-HSCT warrants further investigation. This study aims to evaluate the prognostic significance of high-risk genetic mutations in multiple myeloma patients undergoing a second auto-HSCT. **Methodology:** This retrospective analysis evaluated 26 multiple myeloma patients who underwent a second auto-HSCT between May 5, 2017, and December 10, 2024. Detailed analysis was conducted on 19 patients with available pre-transplant Fluorescence In Situ Hybridization (FISH) data. Among these, 9 patients underwent tandem transplantation, and 10 underwent a non-tandem second auto-HSCT. Prognostic analyses focused on genetic abnormalities detected by FISH. **Results:** The analyzed cohort included 10 males (52.6%) and 9 females (47.4%), with a mean age of 56.79-years (SD = 10.39, range 34–69). Median follow-up post-second transplantation was 31-months (IQR 18–54). Median intervals between two transplantations were 16-months (IQR 4–72.5) overall and 62-months (IQR 31–93) excluding tandem cases. High-risk genetic mutations were detected in 11 of 19 analyzed patients (57.9%): deletion 17p and amplification 1q (each 26.3%), t(4;14) (15.8%), deletion 1p (10.5%), and t(14;16) (5.3%). Patients with high-risk mutations

had a higher mortality rate (54.5% vs. 25%), although not statistically significant overall (p = 0.198). Amplification 1q was significantly associated with increased mortality (80% vs. 28.6%, p = 0.048). Kaplan-Meier analysis revealed significantly shorter overall survival for patients with ≥ 2 high-risk mutations (16.10 vs. 59.43 months, p = 0.017), amplification 1q (32.50 vs. 60.57 months, p = 0.048), and deletion 17p (18.50 vs. 59.12 months, p = 0.030). Platelet engraftment was significantly delayed in patients with at least one high-risk mutation (12.64 vs. 10.88 days, p = 0.033). Neutrophil engraftment and hospital stay durations were not significantly different. Pre-transplant hemoglobin, platelet, and neutrophil counts showed no correlation with survival, engraftment times, or hospital stay duration. Survival outcomes were similar between tandem and non-tandem transplantation groups; however, within the tandem subgroup, genetic mutations were associated with higher mortality (66.7% vs. 0%, p = 0.058). **Conclusion:** High-risk genetic mutations, particularly amplification 1q and deletion 17p, significantly predict poorer survival outcomes following second autologous Hematopoietic Stem Cell Transplantation (auto-HSCT) in multiple myeloma patients. Patients harboring these mutations exhibit higher mortality rates and delayed platelet engraftment, underscoring the clinical importance of pre-transplant genetic profiling. Early identification of these genetic abnormalities through FISH analysis could enable more precise risk stratification, guide personalized therapeutic approaches, and potentially improve clinical management and patient outcomes in multiple myeloma.

https://doi.org/10.1016/j.htct.2025.103927

OP 13_Case report

TWO CASES OF PRIMARY AMYLOIDOSIS PRESENTING WITH VERTEBRAL AMYLOIDOMA

Ebru Kavak Yavuz, Vehbi Demircan, Abdullah Karakus, Orhan Ayyildiz

Dicle University Faculty of Medicine Department Hematology, Izmir, Turkey

Objective: Amyloidosis is a rare disease in which symptoms occur due to protein misfolding and the accumulation of amyloid fibrils in organs and tissues. 20 types of amyloid proteins have been identified. AL (Amyloid Light chain), AA (Amyloid Associated), Aβ (Amyloid beta) constitute the major types. AL type contains free immunoglobulin light chain amino terminals formed by plasma cells. AA amyloidosis occurs due to the accumulation of Serum Amyloid A (SAA) in tissues due to severe and long-term infection or inflammation. AL type amyloidosis accompanies approximately 10% of multiple myeloma. The frequency of AL amyloidosis is between 3 and 12 per million. It is more common in men and occurs at an average age of 63. AL amyloidosis can affect various tissues. The involvement of AL amyloidosis is in the heart, kidney, liver, nervous system and very rarely in the vertebral area. **Case 1:** A 56-year-old male patient was admitted to the hospital with complaints of low back pain, leg pain, numbness, and inability to walk. After examinations, a compression fracture was detected that caused height loss at L5, and he underwent surgery by a neurosurgeon. After the operation, fixators were placed at L3, L4, and S1. AL amyloidosis was detected as a result of tissue biopsy taken after surgery. Serum free kappa and lambda levels were studied. Lambda light chain was found to be 41.4 mg/dL (8.3–27 mg/dL) high. Other examination results were urea: 53 mg/dL (17–43 mg/dL), creatinine: 0.95 mg/dL (0.67–1.17 mg/dL), calcium 8.8 mg/dL (8.8–10.6 mg/dL), INR = 1.6, PT = 18.1 sec (10–14 sec), APTT 35.6 sec (21–29 sec), Hbg: 9g/dL (12.9–14.2 g/dL), MCV = 78fL (81–96 fL), platelet: 220 10^3/UL (155–366 10^3/U/L), complete urine test was normal, there was no proteinuria. Bone marrow biopsy showed 5%–7% plasma cells. NTpro BNP was 153 pg/mL (< 100 pg/mL), Echocardiography (ECHO) showed the left atrium wider than normal, other heart chambers were of normal width and their wall thicknesses increased. It was evaluated as hypertrophic cardiomyopathy. Ejection Fraction (EF) was measured as 60% with preserved systolic functions. The patient was started on VCD (cyclophosphamide, bortezomib, dexamethasone) and daratumumab treatment with the diagnosis of primary amyloidosis. The patient developed a hematoma in the surgical area, factor levels were studied, factor 10 level was found to be 10% low. Upon numbness, Electromyomography (EMG) was performed on bilateral lower extremities. EMG results showed low bilateral tibial nerve amplitudes. The patient's complaints of loss of strength in the legs and inability to walk began to improve after treatment. **Case 2:** A 60-year-old female patient with diabetes mellitus and coronary artery disease presented with complaints of back pain and difficulty walking. As a result of the vertebral MRI examination performed for the complaints, a lytic mass lesion of 27 × 13 mm in size, extending posteriorly, largely filling the T8 vertebral corpus was observed. The patient was taken to surgery and the mass was removed. In the pathology examination of the mass, CD38, CD138, Lambda positive and Congo red positive staining were observed. In the evaluation of serum free kappa and lambda, free kappa was 111 mg/dL, free lambda was 26 mg/dL, serum free kappa/lambda: 4.17. In the bone marrow examination, the plasma cell ratio was evaluated as 8%. Other laboratory results were as follows: urea: 32 mg/dL (17–43 mg/dL), creatinine: 0.7 mg/dL (0.67–1.17 mg/dL), calcium: 8.9 mg/dL (8.8–10.6 mg/dL), INR: 1.06, PT: 12.2 sec (10–14 sec), APTT: 20.5 sec (21–29 sec), Hbg: 11.4 g/dL (12.9–14.2 g/dL), MCV: 87 fl, platelet: 272 10^3/UL (155–366 10^3/U/L), complete urinalysis showed 3+ proteinuria. Spot urine protein creatinine ratio: 4.5 gr/day was detected. NT pro BNP: 219 pg/mL (< 100 pg/mL) increased, hs Troponin I: 13.3 ng/L. Cardiac examination ECHO showed normal heart chambers, normal left ventricular functions, EF%60. ECG examination was normal. VCD chemotherapy was started in the patient's treatment. The patient's complaints have decreased, and his treatment is continuing. **Results:** AL type primary amyloidosis presenting with vertebral involvement is a rare condition. Amyloidoma is usually a single mass and contains only amyloid in its structure. It can occur in many areas of the body and is hard and fixed. This pattern of involvement is very aggressive and can cause destruction and fractures in the bone. It is most commonly seen in the thoracic and then cervical vertebrae. Lumbar

vertebra involvement is less common. In the course of AL amyloidosis, heart, kidney, liver and nervous system involvement have prognostic importance. Since the disease is based on a defect in the production of light chains in plasma cells, multiple myeloma-like treatments are applied. Patients who have a complete response to induction therapy (4–8 cycles) should be directed to autologous stem cell transplantation. In our patient, factor 10 deficiency accompanies this condition, which leads to acquired factor 10 deficiency resulting from the adsorption of factor 10 by amyloid fibrils. Since therapeutic factor 10 replacement is insufficient in its treatment, the underlying disease should be corrected. AL Amyloidosis has a cardiac involvement of 50%–70%, renal involvement of 16% and neurological involvement of 10%. The pathogenesis of cardiac involvement involves direct toxic effects of amyloid fibrils on myocytes. Conduction defects such as hypertrophic cardiomyopathy, left ventricular outflow tract stenosis and atrial fibrillation are seen in ECHO. Our patient had a mild elevation in NT pro BNP. ECHO showed findings consistent with cardiac amyloidosis. NT pro-BNP and troponin are used to monitor cardiac involvement. Amyloidosis is a diagnosis that should be considered in patients with heart failure with preserved EF. AL amyloidosis is a disease in which the average life expectancy decreases as organ involvement increases. **Methodology:** In patients who do not respond to treatment, survival may be reduced to 3 months. VCD regimen alone is not an adequate treatment option in cases with organ involvement. Combined treatments with daratumumab and ixazomib enhance the response. **Conclusion:** In conclusion, AL amyloidosis is very rare to be diagnosed as vertebral amyloidoma. Pain is the first symptom due to the formation of a compression fracture, then paraparesis occurs. Rapid decompression and stabilization of the vertebrae should be provided in local treatment. In addition to the local effects of vertebral amyloidoma, it is closely related to shortening the average life expectancy.

https://doi.org/10.1016/j.htct.2025.103928

OP 14_Case report

PROGRESSION OF POLYCYTHEMIA VERA TO ACUTE MYELOID LEUKEMIA FOLLOWING LONG-TERM HYDROXYUREA THERAPY: A CASE STUDY

Bengisu Ece Duman [a], Melis Selin Kadıoğlu [a], Halil İbrahim Yüksel [a], Birol Güvenç [b]

[a] *Department of Internal Medicine, Cukurova University Medical Faculty Hospital, Adana, Turkey*
[b] *Department of Internal Medicine, Cukurova University Medical Faculty Hospital, Division of Hematology, Adana, Turkey*

Polycythemia Vera (PV) is a chronic Myeloproliferative Neoplasm (MPN) with a well-documented risk of progression to Aute Myeloid Leukemia (AML), particularly in patients undergoing prolonged cytoreductive therapy. This report details the case of a 66-year-old male diagnosed with PV five years prior, initially managed with hydroxyurea. Over time, he developed progressive pancytopenia, ultimately leading to a diagnosis of AML. Following leukemic transformation, the patient was treated with azacitidine, a hypomethylating agent commonly utilized in myeloid malignancies. However, hematologic response was minimal, and disease progression ensued. Molecular analysis identified AML-associated mutations, which are implicated in disease evolution, therapeutic resistance, and poor prognosis. The transition from PV to AML represents a critical clinical challenge, significantly worsening patient outcomes. While hydroxyurea remains a widely used first-line therapy for PV, its potential role in leukemic transformation continues to be debated. Azacitidine, although a viable therapeutic option for post-MPN AML, frequently yields limited and non-durable responses, particularly in patients with high-risk genetic alterations. This case underscores the necessity of vigilant monitoring in PV patients receiving long-term cytoreductive therapy to enable early detection of leukemic progression. Alternative treatment approaches, including JAK inhibitors, interferon therapy, and early hematopoietic stem cell transplantation in eligible patients, may play a role in reducing leukemic transformation risk. Further research is essential to enhance the understanding of post-MPN AML pathogenesis and optimize treatment strategies to improve patient survival.

Keywords: Acute myeloid leukemia, Azacitidine, Leukemic transformation, Myeloproliferative neoplasms, Polycythemia vera.

https://doi.org/10.1016/j.htct.2025.103929

OP 15

T-CELL LYMPHOMA DIAGNOSIS AND TREATMENT IN KOSOVO, A CROSS SECTIONAL STUDY

Adriatik Berisha [a,b,c]

[a] *University Clinical Center of Kosovo, Clinic of Hematology, Prishtina, Kosovo*
[b] *Faculty of Medicine, University of Prishtina "HasanPrishtina", Prishtina, Kosovo*
[c] *University of Zagreb, Zagreb, Croatia*

Background: T-cell Lymphoma is a relatively common hematological malignancy in Kosovo compared to the other lymphoid malignancies. Among the other subtypes, Anaplastic large T-cell lymphoma is the most common. The diagnosis of this disease has increased in the last few years and the treatment with chemotherapy and other supportive care has still many challenges. In this study we aimed to better define the presenting features of these diseases in Kosovo. **Methods:** Cross sectional retrospective epidemiological study. The data was collected during the period of June 2018 to June 2023.The data were collected from the chemotherapy treatment protocol books in the Hematology clinic of the UCC Kosovo. The studied population was constituted by patients aged 18-years old and older, both genders, diagnosed the treated with T-cell

Lymphoma in the Hematology clinic of Kosovo. The diagnosis was made based on histopathological and immunohistochemical analysis of lymph nodes or bone marrow biopsies. **Results:** During the period considered time-period, 44 patients were diagnosed and treated with T-cell lymphoma, the most common was Anaplastic large T-cell lymphoma (n = 9, 19.5%) followed by Enteropathy associated T-cell lymphomawith (n = 7, 14.6%), and NK/T-cell lymphoma with (n = 5, 9.7%). Other cases included a T Lymphoma/Leukemia accompanied by cirrhosis hepatis and the only case of gamma/delta T-cell lymphoma. Among the 44 TCL, 29 were treated with CHOP regimen as first line chemotherapy. **Conclusions:** TCL are relatively common in Kosovo, with 44 cases diagnosed over 5-years. The majority of patients were treated with the CHOP chemotherapy protocol as first line therapy. The results of the treatments were successful in achieving remissions in a small number of patients. The patients that did not achieve remission received a second treatment protocol with mixed results and were sent to transplant center. Prolonged survival was exceptional, confirming the need for new targeted approaches.

Keywords: T-cell lymphoma, T Lymphoma/leukaemia, Anaplastic large T-cell lymphoma CHOP, ICE.

https://doi.org/10.1016/j.htct.2025.103930

OP 16

CHARACTERISTICS OF HEMATOLOGICAL MANIFESTATIONS IN PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS: SINGLE CENTER EXPERIENCE

Gül Sandal Uzun

University of Health Sciences Turkey, Gülhane Training & Research Hospital, Rheumatology Department, Ankara, Turkey

Objective: Systemic Lupus Erythematosus (SLE) is an autoimmune disease that manifests with various organ involvement, including hematological involvement. The objective of this study was to examine the demographic and clinical information, as well as the hematological involvement characteristics, of SLE patients. **Methodology:** The study was a single-center retrospective study. Patients with SLE who underwent complete follow-up visits were included in the study according to the classification criteria established by the American College of Rheumatology (ACR) and the Systemic Lupus International Cooperation Clinics (SLICC). A retrospective review of the patients' demographic and clinical information was conducted by examining the hospital's electronic record system. The clinical information, laboratory parameters, and SLE-specific treatments were documented. Patients were divided into sub-phenotypes according to organ involvement, and patients with hematologic involvement (anemia, leukopenia, thrombocytopenia, and splenomegaly) were identified. Statistical analyses were performed using SPSS version 26.0 (SPSS Inc., Chicago, IL, USA). The variables were calculated using visual (histogram and normality plots) and analytical methods (Kolmogorov-Smirnov) to determine whether they were normally distributed. Descriptive analysis was performed using mean ± Standard Deviation (SD) or median and Interquartile Range (IQR). **Results:** The study included 302 patients with SLE, 87 (34.7.8%) of whom had hematological manifestations. The mean age at diagnosis was 36.4 (±9.8). 237 (78.7%) of these patients were female. Clinical manifestations were observed among the patients, including skin involvement in (54.3%), articular involvement (48%), renal involvement in (26%). The ANA test was positive in 96.2% of patients with hematologic involvement. In addition, 34.7% had high anti-dsDNA autoantibodies and 33% had low C3 levels. Anemia was the most common hematological abnormality, affecting 55.7% of patients. The mean hemoglobin value was 9.7 mg/dL. Autoimmune hemolytic anemia was seen in 13.2% of patients. Thrombocytopenia was present in 9.2% of patients, and leukopenia in 12.2%. 57 (18.8%) SLE patients had secondary antiphospholipid antibody syndrome. 76.8% of patients received glucocorticoids and 81% received hydroxychloroquine treatment. 41% of patients received at least one steroid-sparing agent, including azathioprine, cyclophosphamide, mycophenolate mofetil, and rituximab. **Conclusion:** The hematologic manifestations of SLE should be evaluated and treated in order to provide a better outcome.

https://doi.org/10.1016/j.htct.2025.103931