Balkan Myeloma Study Group

Department of Clinical Therapeutics
National and Kapodistrian University of Athens
School of Medicine

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EUROPEAN HEMATOLOGY ASSOCIATION
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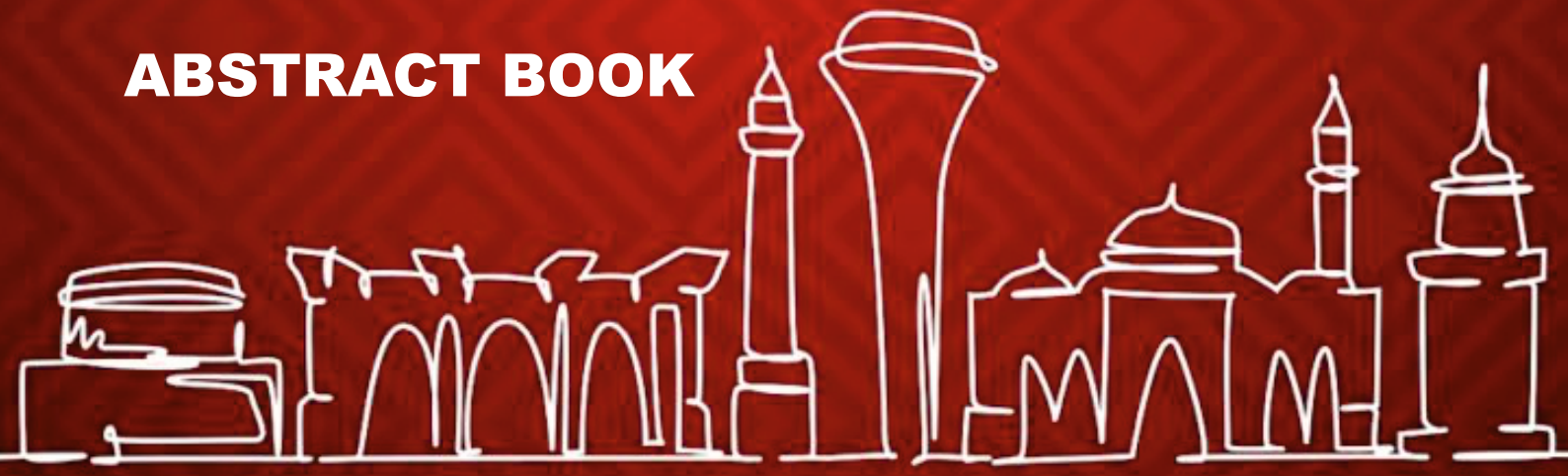
12th AHOS 2025

AEGEAN HEMATOLOGY ONCOLOGY SYMPOSIUM

25-28 SEPTEMBER 2025

Antalya, Turkey | Royal Seginus Hotel

ABSTRACT BOOK



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12th AEGEAN HEMATOLOGY ONCOLOGY SYMPOSIUM

"AHOS 2025"

25-28 September 2025, Antalya - Türkiye

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EDITORIAL

Dear Colleagues,

It's a privilege to invite you to the 12th Aegean Hematology Oncology Symposium which will be held on 25-28 September 2025 in Antalya, Turkey. The Congress is co-organized by the National and Kapodistrian University of Athens (School of Medicine) and the Turkish Medical Association of EHOD (Aegean Hematology Oncology Society) under the auspices of the Balkan Myeloma Study Group and the European Hematology Association, "Scientific Working Group MM".

This meeting is planned to share country perspectives on Hematology Oncology topics between Greek and Turkish Clinicians, to exchange experiences and to create the basis for multi-center, multi-national studies. During the last years, there was a significant progress in the biology of hematological malignancies that led to the development of several novel drugs in the field. More than 30 new regimens have been approved by EMA for hematological malignancies since 2022. The scientific program includes all these data presented by experienced hematologists and it is organized in well-balanced interactive sessions and teaching programs focusing on the needs of Hematology/Oncology Clinicians. This year oral and poster sessions are included again in the program to facilitate the scientific dialogue between Greek and Turkish colleagues and enhance the collaboration between the hematologists of both countries.

We hope that you enjoy the scientific program but also the social program in the beautiful environment of Antalya and we thank you in advance for your contribution in the development of this meeting in order to be even better than the previous AHOS.

On behalf of the Organizing Committee

Guray Saydam & Evangelos Terpos
Co-Chairs of the Symposium

ABSTRACTS
ORAL PRESENTATIONS

O1- Comparison of Transplant Outcomes with Non-cryopreserved Hematopoietic Stem Cell Transplantation versus Conventional Autologous Peripheral Stem Cell Transplantation; Results of a Single-Center Experience

Ramazan Öcal[1],Ece Vural[2],Hamit Aytekin[3],İlknur Aksoyoğlu[4],Oral Nevruz[5],Osman İlhan[6],Meral Beksac[7]

Objective : High dose Melphalan with the support of AHSCT is still standard treatment modality in MM. Transplantation of hematopoietic stem cell (HPSC) without cryopreservation (CP) is an accepted approach. This non-cryopreservation (non-CP) technique requires up to six days' duration of conditioning regimen which is applicable to MM and lymphoma. Moreover, this technique reduces costs, and DMSO toxicity. This single center prospective analysis aims to compare ASCT outcomes between patients transplanted with CP or non-CP technique.

Methods : 104 consecutive patients underwent AHSCT from October 2023 to June 2025 were included. Patients who had second AHSCT as tandem or salvage therapy were excluded. Following G-CSF, chemo-GCSF, plerixafor mobilization, HPSC were quantified and were randomly assigned either to traditional CP under controlled rate cooling conditions or kept under +4 degrees (non-CP). Mel140 or Mel200 was administered on day -2. AHSCT outcomes including infusion reactions, engraftment kinetics, transfusion requirements, duration of hospitalization and transplant-related complications, i.e. oral mucositis were compared between the two cohorts. CP-HPSC groups were examined retrospectively, while other patients were examined prospectively. Statistical comparisons were performed using Jamovi. Numerical non-parametric data were analyzed with the Mann-Whitney U test, while categorical non-parametric data were compared using Fisher's exact test. Kaplan-Meier analysis was used for PFS and OS data. A p-value < 0.05 was considered statistically significant.

Results : In this study, 59 out of 104 patients included in more frequently non-CP cohort received the VRd compared to VCD induction (72.4% vs. 53.3%, p = 0.045). Higher VGPR rates were observed in the same cohort (51% vs. 37%, p = 0.79), and the interval between diagnosis with an AHSCT to be shorter (p = 0.001). In the non-CP group, plerixafor use was more frequent (42.4% vs. 14%, p = 0.02), a higher number of CD34+ HPSC was collected (7.28 vs. 5.2 million/kg, p = 0.004) and transplanted (5 vs. 4.36 million/kg, p = 0.01). Back-up HPSC collection was more frequent in the non-CP arm (20 vs. 38, p=0.042). Pre- and post-transplant viability was over 93% and similar in both groups. Infusion-related side effects were less common in the non-CP group (1.7% vs. 11.1%, p <0.001). No significant difference was observed between the two groups in terms of febrile neutropenia and the frequency of antibiotic use (p=0.75; p=0.75). Neutrophil engraftment occurred faster (11 vs. 12 days, p <0.001), fewer red blood cell transfusions were needed (2 vs. 3 units, p = 0.005), and the length of hospital stay was shorter (14 vs. 15 days, p = 0.025). Since high-dose melphalan (Mel-200) was more commonly used in the non-CP group, the severity of mucositis was also greater. However, during a median follow-up of 11 months, the 2-year PFS and OS rates were similar between both groups.

Conclusion: As a result, it is not possible to associate faster engraftment, shorter hospitalization, less transfusion need with only non-CP HPSC use as there was more frequent plerixafor use, higher VRd induction and better HPSC yield. Nevertheless, with introduction of generic plerixafor this approach is a less costly effective regimen.

O2- Von willebrand factor levels show independent prognostic significance in patients with AL amyloidosis treated with daratumumab-based therapies

Foteini Theodorakakou[1],Zoey Kapsimali[2],Alexandra Papadimou[1],Katerina Chrisostomidou[1],Kostantina Taouxi[1],Ilias Katsadouros[1],Panagiotis Malandrakis[1],Magdalini Migkou[1],Ioannis Ntanasis-Stathopoulos[1],Vasiliki Spiliopoulou[1],Eirini Solia[1],Evangelos Eleutherakis-Papaiakovou[1],Asimina Papanikolaou[3],Maria Gavriatopoulou[1],Evangelos Terpos[1],Eleni Pergantou[2],Meletios Dimopoulos[1],Ioannis Papassotiriou[4],Efstathios Kastritis[1]

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Objective : von Willebrand factor (vWF) is a large multimeric glycoprotein mainly produced by endothelial cells (ECs), participates in primary hemostasis, inflammation, and angiogenesis. We have previously shown that elevated levels of serum vWF antigen (vWF:Ag) are prognostic in AL amyloidosis, even among patients with advanced cardiac disease (Kastritis E et al Blood 2016), but there is no validation in patients treated with contemporary regimens.

Methods : We measured vWF:Ag levels in 232 consecutive patients (pts) with newly diagnosed AL amyloidosis, treated in the Department of Clinical Therapeutics, Athens, in serum collected before the initiation of therapy.

Results : Median age was 67 years; 56% were males; 84.5% had heart, 59% renal, 22% liver, 23% nerve and 28% soft tissue involvement. Per European Mayo 2004 stage distribution was 11%, 42%, 25% and 22% for stages 1, 2, 3A and 3B; 92% received bortezomib-containing (n=213) and 39% daratumumab-based primary therapy (n=91). Median serum level of vWF:Ag was 201U/dL (range 70-1151). There was marginal association of vWF:Ag level with renal (p=0.05) and liver involvement (p=0.042) but no association with Mayo stage, heart, nerve or soft tissue involvement. vWF:Ag level was associated with D-dimer (r=0.345, p=0.001) but no correlation was found with clonal markers (iFLC, BMPC infiltration). Median follow-up was 50 months and median overall survival was 70 months. Mortality at 3- and 6-month was 14% and 19%, respectively. By ROC analysis the cutoff for vWF:Ag level associated with 3- and 6-month mortality was 210.5U/dL and 208.5U/dL, respectively. vWF:Ag levels ≥210U/dL were associated with a 3-month mortality of 22% (vs 10% for vWF:Ag <210U/dL, p=0.019) and 6-month mortality of 28% (vs 14%, p=0.014). vWF:Ag ≥210U/dL identified pts with worse prognosis within Mayo stage 3 group (median OS 33.5 vs 7.3 months, p=0.040). Then, we focused on pts who received daratumumab as first line therapy: pts with vWF:Ag ≥210U/dL had 3-month mortality of 32% vs 13% for vWF:Ag <210U/dL (p=0.032) and 6-month mortality of 42% vs 15% (p=0.004). Median OS for pts with vWF:Ag ≥210U/dL was 31 months vs not reached (p=0.018). Among pts with Mayo stage 3, those with vWF:Ag ≥210U/dL had significantly worse outcome (median OS 4 months vs not reached, p=0.008). Even after adjustment for European modification of Mayo Stage, vWF:Ag ≥210U/dL was an independent predictor of inferior survival (HR 2.11, 95% CI 1.03-4.30, p=0.040). In multivariate analysis that included the components of the Mayo stage and dFLC ≥180mg/L, vWF:Ag ≥210U/dL (HR 2.26, 95% CI 1.08-4.71, p=0.030) and NTproBNP ≥8500pg/mL were independently associated with inferior survival (HR 3.05, 95% CI 1.18-7.87, p=0.021). We, additionally, evaluated renal outcomes among pts that received daratumumab. Pts with vWF:Ag ≥210U/dl had a 2-year dialysis rate of 35% vs 6% and with risk of progression to dialysis (HR 7.44, 95% CI 1.34-41.34, p=0.022).

Conclusion: In conclusion, vWF:Ag levels remains a strong predictor of early mortality among patients treated with daratumumab, independently of cardiac involvement. The current validation study places vWF:Ag as a promising biomarker that provides additional prognostic information and identifies patients at high risk of early death.

O3- Retrospective Comparison of BEAC and BEAM as Conditioning Regimens in Autologous Hematopoietic Stem Cell Transplantation for Lymphoma Patients: Efficacy and Toxicity

Damla Çağla Patır[1],Berfin Nazlı Torun[2],Ajda Güneş[1],Melike Yaşar Duman[3],Mehmet Soylu[3],Derya Demir[4],Nur Soyer[1],Filiz Vural[1],Fahri Şahin[1],Mahmut Töbü[1],Güray Saydam[1]

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Objective : High-dose therapy followed by autologous hematopoietic stem cell transplantation (AHCT) is a frequently chosen treatment for various patient groups with relapsed/refractory (R/R) lymphomas. It is also used to consolidate first-line induction therapy in mantle cell and T-cell lymphomas To compare the safety, and efficacy of BEAC versus BEAM conditioning regimens in patients with relapsed/refractory (R/R) lymphoma undergoing autologous hematopoietic stem cell transplantation (AHCT).

Methods : This single-center, retrospective analysis included 22 sequential patients with R/R lymphoma (13 BEAM, 9 BEAC) who underwent AHCT between January 1 and December 31, 2023. Patient characteristics, hematologic reconstitution, treatment outcomes, and regimen-related toxicities were analyzed.

Results : A total of 22 patients were evaluated, with 13 in the BEAM group and 9 in the BEAC group. The median age in the BEAM group was 50 (range 23-70), while it was 46 (range 27-57) in the BEAC group. Among individuals in the BEAM group, 46% were female and 54% were male. In the BEAC group, 11% were female and 89% were male. No significant differences were observed between the BEAM and BEAC groups in terms of time to hematopoietic recovery, or length of hospitalization. Overall survival and progression free survival were not significantly different between the two conditioning regimens. The incidence of transplant-related infections was similar. However, the duration of non-infectious diarrhea was significantly longer in the BEAM group. Treatment-related death occurred in one patient in the BEAM group.

Conclusion: In this limited sample size, the BEAC conditioning regimen demonstrated comparable safety and efficacy to BEAM in patients with R/R lymphoma undergoing AHCT. While BEAC appears to be a feasible alternative, the longer duration of diarrhea with BEAM was a notable finding. Further studies with larger cohorts and longer follow-up are warranted to validate these results and establish definitive conclusions regarding the optimal conditioning regimen in this setting.

O4- Retrospective Analysis of Primary Hypereosinophilia Cases: Preliminary Findings from Next-Generation Sequencing

Zehra Akşit Bozkına[1],Ajda Güneş[1],Derya Demir[2],Nazan Özsan[2],Güneş Ak[3], Akın Çinkooğlu[4],Haluk Akın[5],Mahmut Töbü[1],Filiz Vural[1],Nur Soyer[1]

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Objective : Hypereosinophilic syndrome (HES) represents a rare and heterogeneous group of hematologic disorders characterized by sustained eosinophilia resulting in organ damage. Despite the availability of periodically updated guidelines, clinical data and evidence regarding treatment modalities in HES remain limited. To present our institutional experience with patients diagnosed with primary hypereosinophilia, focusing on their clinical characteristics, therapeutic approaches, genetic profiles, and, where available, preliminary findings from next-generation sequencing (NGS) analyses.

Methods : The study included 13 patients diagnosed with and followed for primary hypereosinophilia between December 2007 and July 2025. Clinical and demographic data were retrospectively obtained from the hospital's electronic database and patient records. Individuals without medical records and those under 18 years of age were excluded from the analysis.

Results : The median age at diagnosis was 40 years. A total of 61.5% (n = 8) of the patients were male. Comorbidities were absent in 53.8% (n = 7) of the patients, while two patients had coronary artery disease. A history of thrombosis was present in five patients (38.5%), with etiologies including pulmonary thromboembolism, coronary artery disease, atrial thrombus, and ventricular thrombus. Echocardiography revealed increased intraventricular wall thickness in 46.2% (n = 6) of patients, and increased reticular fiber grade (grade 2) was detected in 61.5% of cases. Among two patients who underwent biopsy, one had eosinophilic esophagitis and the other showed eosinophilic infiltration on lung tissue biopsy, consistent with organ involvement. Abdominal ultrasonography revealed no organomegaly in 84.6% of patients. Pruritus at presentation was noted in 23.1% of patients.Karyotype analysis was performed in only six patients. PDGFR-A was positive in one patient, while two patients were not tested. PDGFR-B was positive in one patient and negative in the remaining five tested patients. Next-generation sequencing (NGS) was performed in five patients. Only two patients received interferon therapy following first-line corticosteroids. Hydroxyurea was used in nine patients (dose range 1000–1500 mg), and imatinib was administered to eight patients (at doses of either 100 mg or 400 mg). Except for one patient, treatment responses were sustained at the last follow-up.The overall survival rate was 92.3%, with a median follow-up duration of approximately 5.53 years. The only patient who died had progressed to acute myeloid leukemia and died after undergoing allogeneic transplantation.

Conclusion: In this study, we aimed to share our clinical experience, treatment strategies, and survival outcomes in rare cases such as primary hypereosinophilia. Beyond cytogenetic analysis, other target genes that can be identified through NGS may, in the future, demonstrate clinical significance and potentially lead to innovations in treatment strategies.

O5- Targeting STAT5A via CRISPR/Cas9 Restores TKI Sensitivity in Resistant Chronic Myeloid Leukemia Cells

Besne Çelik[1],Güray Saydam[2],Burcin Tezcanlı Kaymaz[1]

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Objective : Resistance to tyrosine kinase inhibitors (TKIs) remains a major challenge in the treatment of chronic myeloid leukemia (CML). STAT5A, a downstream effector of BCR-ABL1, has been identified as a key transcriptional regulator implicated in the development of TKI resistance. This study aimed to functionally validate the role of STAT5A in TKI-resistant CML by selectively knocking out the gene via CRISPR/Cas9 and evaluating its downstream effects on cell viability, apoptosis, and key survival signaling pathways.

Methods : STAT5A was knocked out using CRISPR/Cas9 in K562 cells and their TKI-resistant derivatives (K562/Ima-Res, K562/Pon-Res). Following gene editing, XTT assays were performed to assess cell viability, Annexin V/PI staining was used for apoptosis, and PI-based flow cytometry was conducted for cell cycle analysis. RT-qPCR was applied to quantify the expression of key genes involved in the JAK/STAT pathway (JAK2, STAT3, CISH) and apoptosis/DNA damage responses (TP53, ATM, CASP3, CASP8).

Results : STAT5A knockout significantly reduced cell viability and induced apoptosis across all CML cell models, accompanied by G0/G1 cell cycle arrest. RT-qPCR analysis revealed altered expression of both JAK/STAT components (JAK2, STAT3, CISH) and apoptosis-related genes (TP53, ATM, CASP3, CASP8). CISH dysregulation further suggested compensatory feedback within the signaling network.

Conclusion: CRISPR/Cas9-mediated STAT5A disruption effectively reverses TKI resistance in CML cells by reprogramming apoptotic and proliferative signaling. STAT5A emerges as a compelling therapeutic target, warranting further investigation in preclinical models and patient-derived samples to evaluate its translational potential.

O6- Blastic Plasmacytoid Dendritic Cell Neoplasia: Single Center Results with Conventional Treatment Options

Denis Çetin[1],Ajda Güneş[1],Nazan Özsan[2],Derya Demir[2],Mine Hekimgil[2],Emin Karaca[3], Haluk Akın[3],Hale Bülbül[4],Mahmut Töbü[1],Nur Akad Soyer[1],Güray Saydam[1]

[1]Ege University Department of Hematology, [2]Ege University Department of Pathology, [3]Ege University Department of Genetics, [4]İzmir State Hospital Department of Hematology

Objective : Blastic plasmacytoid dendritic cell neoplasia (BPDHN) is a unique hematologic malignancy with features of both myeloid and lymphoid malignancies, a highly aggressive clinical phenotype, and a historically challenging course in terms of patient management.1,2,3 BPDHN is characterized by involvement of four primary sites, including skin, bone marrow, lymph nodes, and a strikingly high incidence of central nervous system/cerebrospinal fluid (CSF) involvement.4 Triple positivity, with expression of the IL-3Rα surface marker (CD123+), CD4+, and CD56+, remains the most well-established aspect of BPDHN diagnosis in most cases. The addition of TCL1, TCF4, and CD303, which achieved nearly 100% specificity in diagnosis, has greatly aided the diagnosis of this complex, rare malignancy. 5 At the molecular level, BPDHN tends to resemble myeloid malignancies such as myelodysplastic syndrome (MDS), chronic myelomonocytic leukemia (CMML), or acute myeloid leukemia (AML), as the most common mutations or variants repeatedly identified by groups are splicing factor mutations such as TET2, ASXL1, RAS, and ZRSR27. 6,7 The clinical and cytogenetic features and treatments received by 13 patients diagnosed and followed at our center were examined. While survival rates have improved with the increase in targeted therapy options in recent years, these drugs are not available in every country. Therefore, debate continues regarding the most appropriate treatment options other than targeted therapies.

Methods : Demographic data, cytogenetic features, and treatments of patients diagnosed with blastic plasmacytoid dendritic cell neoplasia in our center in the last 10 years were retrospectively analyzed.

Results : Thirteen patients whose records were accessible were included in the study. The median age at diagnosis was 64 (19-76). Nine (69%) patients had skin involvement at diagnosis, eight (61%) had bone marrow involvement, six (46%) had lymph node involvement, and one patient had central nervous system involvement. Eleven (84%) patients were able to receive treatment, while two (16%) either did not receive treatment or refused treatment. The induction regimen included HYPER-CVAD in four (31%) patients, anthracycline-cytarabine in three (23%) patients, and a combination of hypomethylating agent and venetoclax in two (15%) patients. Of the five (39%) patients who underwent karyotyping, only one had a complex karyotype, while NGS was performed in two patients, and ASXL1 and TET2 positivity was detected in two patients. Five (38%) patients achieved remission, and two (15%) patients were able to undergo allogeneic stem cell transplantation. Overall survival was calculated as 7±6.17 months. 1-year survival was calculated as 46.2±13.8%, and 2-year survival was calculated as 18.5±11.5%. Overall survival was 17±4.3 months in patients who entered remission, and 2±1.41 months in those who did not (p: 0.12).

Conclusion: Blastic plasmacytoid dendritic cell neoplasia is an aggressive disease with unique characteristics. In many countries, including ours, targeted therapy options are unavailable. Patients are unlikely to achieve remission with conventional regimens, and therefore, the rate of transition to allogeneic stem cell transplantation, the only curative treatment option, remains low. Awareness of this disease, which has orphan drug status for targeted therapy options, should be raised, and in cases of clinical suspicion, referral to centers with experienced hematopathologists would be advisable.

O7- Prognostic Significance of the CONUT Score in Hodgkin Lymphoma

Didem Koca[1],Güray Saydam[2],Fahri Şahin[2],Filiz Vural[2],Nur Soyer[2]

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Objective : Hodgkin lymphoma (HL) is a hematologic malignancy affecting young adults and showing high treatment success. Despite this, reliable prognostic markers are needed. Nutritional status has emerged as an important factor in cancer outcomes. The Controlling Nutritional Status (CONUT) score, based on serum albumin, total cholesterol, and lymphocyte count, is an objective parameter used to assess nutritional and immunologic status. Although its prognostic value has been studied in other malignancies, it remains unclear in HL. This study aimed to evaluate the prognostic significance of the CONUT score in HL and its association with clinical features and survival.

Methods : A retrospective analysis was conducted on 326 HL patients treated at Ege University Hematology Clinic between 2005 and 2024. Among them, 188 patients with available CONUT scores were included. Diagnosis was confirmed histopathologically. Staging was performed using the Ann Arbor system with the Cotswolds modification. Patients were grouped as early- or advanced-stage per EORTC criteria, and IPS scores (3–7) were calculated for advanced stages. A CONUT cut-off value of ≤4 was chosen due to its 92% sensitivity. Demographics, lab values, and survival data were evaluated. Associations between CONUT scores and clinical/laboratory variables were analyzed statistically.

Results : The mean age was 41.3±16.9 years; 77 patients (41%) were female. In patients with CONUT ≤4, the mean diagnosis age was 40.4±16.3 years and follow-up was 55.6±46.7 months, compared to 49.6±20.7 years and 41.7±39.2 months for those with CONUT >4. Chronic diseases were present in 85 patients (45.2%), with hypertension significantly more common in the CONUT >4 group ($p<0.034$). Bone marrow and extranodal involvement were also more frequent in patients with higher CONUT scores ($p<0.001$). IPS scores and CONUT scores were significant predictors of overall survival ($p<0.001$). Survival varied significantly by disease stage ($p<0.05$), and 1-, 3-, and 5-year survival rates were lower in patients with CONUT >4 ($p<0.001$). A lower CONUT score was consistently associated with better overall survival.

Conclusion: This study demonstrates a significant association between the CONUT score and prognosis in Hodgkin lymphoma, including disease stage, overall survival, and established prognostic markers. Patients with a higher CONUT score (>4) had worse survival outcomes and a higher frequency of adverse clinical features. The findings suggest that the CONUT score may serve as a valuable prognostic parameter in HL, aiding in risk stratification and personalized treatment approaches.

O8- Investigation of Potential Antiproliferative Activity of Cannabinoid Type 2 Receptor Ligand in Chronic Myeloid Leukemia Cells Resistant to Tyrosine Kinase Inhibitors

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Objective : Chronic myeloid leukemia (CML) is hematopoietic stem cell disease characterized by the Philadelphia chromosome and is treated with tyrosine kinase inhibitors (TKIs). Synthetic cannabinoids are more bioactive than their natural counterparts and, have the potential to be used as alternative therapeutics for many cancers due to their high efficacy at low doses. Determining the therapeutic efficacy of targeted compounds across a broader range of targets in CML cell models will reveal potential new treatment strategies. Therefore, the aim of the present study was to investigate the potential antiproliferative activity of the SC agent JWH-073 alone and in combination with the TKIs imatinib and ponatinib in TKI-sensitive K562-WT (wild-type) and 3 nM ponatinib-resistant K562/Pon3 and 1.2 µM imatinib-resistant K562/IMA1.2 cell lines.

Methods : The cells were treated with JWH-073 as mono and in combination of TKIs (ponatinib and imatinib), and the cytotoxic effects on the cells were determined using the XTT method. Subsequently, apoptosis by flow cytometry, cell cycle arrest, and gene expression analysis by RT-qPCR were performed in cells treated with TKIs with IC50 and ED50 (combination dose) of JWH-073. The mRNA transcript levels of JAK2, STAT5A/5B, STAT1 and STAT3 genes, which are key genes in the JAK/STAT signaling pathway that play a key role in the carcinogenesis process of CML, BAX, BCL-2 and BCL-X associated with apoptosis, tumor suppressor TP53, an oncogene MYC, BCR and ABL1; E2F1 and CCND1 associated with cell cycle, and CNR1 and CNR2 genes, components of the endocannabinoid system.

Results : The IC50 of JWH-073 on K562-WT, K562/Pon3 and K562/IMA1.2 cells were 6.14 µM, 5.87 µM and 0.735 µM at 48 hours, respectively. While in K562-WT cells, ED50 of 0.203 µM for Ponatinib and 2.70 µM for JWH-073 showed synergistic effects, ED50 of 1.06 µM Imatinib and 2.07 µM JWH-073 moderate synergism. In K562/Pon3 cells, ED50 of 0.62 nM for Ponatinib and 609.35 nM for JWH-073 showed strong synergistic effects. In K562/IMA1.2 cells, ED50 of 5.90 µM for Imatinib and 1.80 µM for JWH-073 showed moderate antagonistic effect. In K562-WT cells, IC50 of JWH-073 and ED50 with ponatinib and imatinib increased the apoptosis rate to 38%, 30% and 4%, respectively. In K562/Pon3 cells, the IC50 of JWH-073 and the ED50 with ponatinib increased the apoptosis rate to 24% and 12%, respectively. In K562/IMA1.2 cells, IC50 of JWH-073 and ED50 with imatinib increased the apoptosis rate to 11% and 4%, respectively. The IC50 of JWH-073 and in combination with Ponatinib and Imatinib showed 1-fold arrest in G0/G1 phase in cells. JWH-073 was upregulated, pro-apoptotic genes BAX- BCL-2 and BCL-X, CNR1, CNR2, BCL-X, MYC, TP53 and genes while downregulated STAT5A, STAT5B, BCR, ABL1 and JAK2 genes associated with JAK/STAT signaling pathway in cells.

Conclusion: JWH-073 regulates the expression of key genes in cells and inhibits important molecular signaling pathways associated with cell survival, apoptosis, and oncogenesis. Given this anti-proliferative effect, JWH-073 is likely to be a potential new agent that can be used in conjunction with TKI therapy, paving the way for ex vivo and further clinical studies.

O9- Novel criteria for evaluating early treatment response with whole body magnetic resonance imaging and prognostic implications in patients with newly diagnosed multiple myeloma and focal lesions

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Objective : Whole-body magnetic resonance imaging (WBMRI) is a highly sensitive technique to detect focal lesions in patients (pts) with newly diagnosed multiple myeloma (NDMM). However, its role and the criteria for evaluating treatment response prospectively are not well defined.

Methods : Consecutive NDMM pts who underwent WBMRI at diagnosis and two months after treatment initiation, were prospectively enrolled. For those with focal lesions (FL) an Interim MRI-based Response Grade (iMR-RG) was implemented. Definite response (DR) was defined as: a) complete dissapearance of the FL or b) increase of apparent diffusion coefficient (ADC) to ≥1400 or ≥40% increase compared to baseline and c) disappearance of paramedullary disease (PMD), if present at baseline. Partial response (PR) included: a) an increase of ADC to 1200-1400 or >25% but <40% increase compared to baseline and b) a decrease in size of PMD. Non-response (NR) was characterized by no significant change of ADC compared to baseline and no change in size of PMD. In the case of multiple FLs, if the majority showed evidence of DR and a minority of PR, then the response was labeled as “definite response dominant” (DRD) while the vice-versa as “partial response dominant” (PRD). Moreover, if all or most FLs showed evidence of NR while a minority showed evidence of PR or DR, then this was labeled as “non-response dominant” (NRD). Definite progression was characterized by: a) new FL(s) or b) increase in size of the FL(s) or c) increase in size of the PMD or d) new PMD or EMD.

Results : 93 pts with NDMM were included, with a median age of 69 years (range 31-89), whereas 39.8% were females. The median follow-up since the first WBMRI was 19.4 months. Among the 61 patients with FLs, imaging responses to treatment two months post initiation were as follows: 7 (11.5%) definite response, 35 (57.4%) definite response dominant, 16 (26.2%) partial response dominant, 2 (3.3%) non-response dominant and 1 definite progression (1.6%). 13/17 (76.5%) pts with FLs and PMD responded. Best hematological responses to first-line treatment included: 3 (s)CR (4.2%), 38(62.3%) VGPR, 18 (29.5%) PR and 2 (3.3%) minor response. Importantly, the disease progression event was identified before documented hematological progression or clinical deterioration. The depth of imaging response was significantly associated with the depth of hematological response (p=0.027). More specifically, definite response dominant WBMRI responses were associated with VGPR serum responses (OR=4.48, 95% CI: 1.34-16.23, p=0.008). Among pts with FLs, 6 progressed and 6 died. Achieving at least a partial response dominant at second WBMRI was associated with significantly superior PFS outcomes (HR=0.19, 95% CI: 0.04-0.89, p=0.035), while a trend was also observed for TTP (HR=0.16, 95% CI: 0.02-1.41, p=0.098). Similarly, pts achieving at least a definite response dominant at second WBMRI seemed to have superior PFS (HR=0.33, 95% CI: 0.11-1.02, p=0.055) and significantly superior TTP (HR=0.15, 95% CI: 0.03-0.84, p=0.031).

Conclusion: The proposed novel criteria for evaluating early treatment response with WBMRI in NDMM pts seem to have both predictive and prognostic value.

O10- Characteristics and clinical course of younger Patients with asymptomatic monoclonal gammopathies: Low risk features and low risk of complications

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Objective : Monoclonal Gammopathies of Undetermined Significance (MGUS), Smoldering Multiple Myeloma (SMM), and asymptomatic Waldenström's Macroglobulinemia (aWM) are precursor conditions of progression to symptomatic malignancy. The aim of this analysis was to characterize asymptomatic monoclonal gammopathies in younger patients

Methods : We analyzed consecutive patients diagnosed with asymptomatic monoclonal gammopathies between 2014 and 2024, at the Department of Clinical Therapeutics, Greece, according to IMWG 2014 criteria and for IgM MGUS and aWM per IWWM-2/WHO criteria, prospectively.

Results : The analysis included 1240 patients with a median age of 65 years. Among them 12.1% were diagnosed before the age of 50 years, while 2% were younger than 40 years. Among patients <50 years, the diagnoses were MGUS in 52%, SMM in 45% and aWM in 3%. This distribution was not significantly different than in those 50 years or older. Among patients with SMM, the risk category distribution per IMWG 20/2/20 was similar with most patients in both age groups classified as low risk SMM (64% and 65% for ages below and 50 or above), 25% and 22% were intermediate and 9% and 13% high risk respectively. There were significantly more female patients in the group below 50. Although there were statistical differences in the level of total serum protein, serum albumin, serum creatinine and eGFR, hemoglobin and b2 microglobulin, these were not clinically significant ($p<0.005$ for all). Cytogenetics were available in 340 patients, and the distribution of cytogenetic aberrations was similar between age groups. The median follow-up for the whole cohort is 3 years. In the whole cohort, 2, 3 and 5-year progression rate to symptomatic disease was 4%, 6% and 11%. No patient <50 progressed with symptomatic CRAB, but with either SLiM (n=4) or asymptomatic bone lesions detected in regular follow up imaging (n=3). For patients with SMM, progression rate to symptomatic MM at 2, 3 and 5-year was 4%, 6% and 12% for patients <50 years while for older patients was 9%, 13% and 20% respectively ($p=0.049$); however, after adjusting for risk (per 20/2/20) there was no significant difference. There was no significant difference in the progression rate among patients with non-IgM MGUS although there have been no progression events among patients diagnosed <50 years of age up (vs 5% at 5 years for those 50 or older, $p=0.315$). Among patients with IgM MGUS or with aWM there were no progression events among patients <50 years, but progression events were few also in the older age group ($p=0.737$). A small subgroup of patients (n=24) was 40 years or older, 71% of which were females, and 50% had SMM and 50% MGUS. Among those with SMM 75% had low and 25% intermediate risk SMM – no patient was at high risk per 20/2/20. No progression event has occurred in this group after a median follow up of 3 years.

Conclusion: Patients diagnosed under 50 years exhibited similar biological features compared to older patients, with generally low progression rates and low risk of complications. Hence, they should be ensured about their good prognosis and be followed appropriately.

O11- Evaluation Of Prognostic Factors In Patients With Peripheral T-Cell Lymphoma

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Objective : Peripheral T-cell lymphoma (PTCL) is a diverse, uncommon, and highly aggressive malignancy arising from mature T and NK cells, accounting for approximately 10% of newly diagnosed lymphomas. There is no single marker for determining prognosis. Recently, some scores measuring malnutrition and immune response have been tested in various malignancies and found to have prognostic value. We designed this study to determine the prognostic factors influencing disease outcomes and to evaluate the prognostic scoring systems previously used in different hematologic malignancies.

Methods : We retrospectively analyzed patients diagnosed with peripheral T-cell lymphoma (PTCL) at Ege University Hospital between January 2013 and December 2023 who had at least six months of follow-up. Demographic data, clinical characteristics, laboratory findings, pathology results, disease subtypes, and follow-up outcomes were collected. Based on these data, CONUT, EASIX, and PNI scores were calculated, and their impact on progression-free survival (PFS) and overall survival (OS) was evaluated.

Results : Among the 75 PTCL patients, 65.3% (n=49) were male, and 34.7% (n=26) were female. The mean age at diagnosis was 53.5 ± 13.6 years. Disease progression was observed in 80% (n=60) of patients, with a median progression-free survival (PFS) of 10 months. Mortality was recorded in 60% (n=45) of cases, with a median overall survival (OS) of 44.01 months. According to WHO-HAEM5 classification, the primary subtypes were anaplastic large cell lymphoma (ALCL) in 32% (n=24), follicular T-cell lymphoma in 29.3% (n=22), and PTCL-NOS in 14.7% (n=11). In univariate analysis for PFS, B symptoms, ECOG ≥2, elevated LDH, thrombocytopenia, high ferritin, PTCL subtype, and high EASIX score were identified as significant prognostic factors for disease progression ($p < 0.05$). High EASIX increased the risk of progression by 2.2 times (HR=2.210, 95% CI: 1.034-4.723, p=0.041), while non-ALCL subtypes had a 2.4-fold higher progression risk compared to ALCL (HR=2.404, 95% CI: 1.191-4.852, p=0.014). The ROC curve analysis determined the cut-off values as 0.786 for EASIX and 48.12 for PNI. Based on these thresholds, patients were classified into low and high groups. For OS, the univariate analysis identified B symptoms, ECOG ≥2, elevated LDH, thrombocytopenia, high ferritin, PTCL subtype, low PNI, high CONUT, and high EASIX scores as significant prognostic factors. In multivariate regression analysis, being in a non-ALCL PTCL subtype increased the mortality risk by 2.4 times (HR: 2.404, p=0.014, 95% CI: 1.191-4.852), while low PNI increased the mortality risk by 3.1 times (HR: 3.117, p=0.002), identifying them as independent risk factors.

Conclusion: Studies on PTCL using the prognostic scores mentioned in the literature are limited. In our study, high LDH, high ferritin, thrombocytopenia, the presence of B symptoms, and poor performance status were found to be consistent with the literature as prognostic indicators. Additionally, low PNI, high CONUT, and high EASIX may serve as independent prognostic markers in PTCL.

O12- Single-Center Experience of Selinexor in Combination with Dexamethasone With or Without Bortezomib in Relapsed/Refractory Multiple Myeloma: Preliminary Results

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Objective : Multiple myeloma (MM) is a hematological malignancy characterized by clonal plasma cells in the bone marrow or biopsy-proven plasmacytom (1).Although several first- and second-line treatment options exist,the management of relapsed/refractory MM(RRMM) after two or more prior lines of therapy remains difficult (2).In this study, we present the experience of 12 patients, the majority with relapsed disease, who received either SD or SVd.

Methods : A total of 12 patients diagnosed with MM between January 2007 and September 2024 and followed at our center were included in this study.Clinical and demographic data were retrospectively obtained from the hospital's electronic medical database and patient records.The first patient initiated selinexor therapy in February 2025.

Results : Between February and July 2025, with the availability of selinexor access in our country, 12 previously treated RRMM patients were included in the analysis.The median age at diagnosis was 61 years (range: 51–74) and the median age at selinexor initiation was 69.5 years (range: 61–78). The majority of patients were female (66.7%, n=8).At diagnosis, one-third of patients had IgG myeloma, one-third IgA, and one-third light chain disease.According to the R-ISS staging system (excluding two missing data), five patients were stage 3.Half of the patients received SVd and the other half received SD.The median number of prior treatment lines before selinexor was 3.5.Half of the patients had undergone autologous stem cell transplantation (ASCT),with one patient having undergone ASCT twice.Daratumumab-containing regimens were administered in 58.3% of prior therapies, 91.7% of patients had received lenalidomide, 50% pomalidomide, and 50% carfilzomib.Only one patient was triple-refractory.Regarding dosing, in the SVd group,three patients started with weekly 80 mg and three with weekly 60 mg selinexor.In one case, the dose was escalated to 100 mg weekly from the second cycle onward.In the SD group, four patients started with 80 mg twice weekly.In a frail patient, selinexor was initiated at 60 mg once weekly three months after ASCT and maintained at the same dose, with this patient achieving and maintaining a complete response at the last follow-up.The most common AEs were grade 1 thrombocytopenia (41.7%) grade 2 neutropenia (33.3%), and gastrointestinal toxicity (33.3%).At the last follow-up, four patients were continuing SVd and three were continuing SD,while treatment was changed in the others due to disease progression.The overall rate of at least partial response was 41.7%.At last evaluation, four patients had progressive disease (PD),two had stable disease (SD),two had partial response (PR),one achieved very good partial response (VGPR) and two achieved complete response (CR).The median follow-up duration was 6.9 years.The median progression-free survival (PFS) was 99 days, with a one-year PFS rate of 40.5%. The median time to progression was 49 days.Two patients died due to disease progression.OS was not reached,while the one-year OS rate was calculated as 91.7%.Among evaluable patients, 45.5% achieved ≥PR.

Conclusion: The main limitations of our study are its small sample size and retrospective design; nevertheless, both SVd and SD showed encouraging efficacy in heavily pretreated RRMM, with ORR and PFS supporting the benefit of selinexor-based therapy and no new safety concerns.

O13- Updated results of sonrotoclax + dexamethasone, an all-oral treatment, in patients with t(11;14)-positive relapsed/refractory multiple myeloma

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Objective : To assess safety and efficacy of sonrotoclax + dexamethasone in patients with t(11;14)-positive multiple myeloma (MM) in a phase 1b/2 study.

Methods : In BGB-11417-105 (NCT04973605), eligible patients had relapsed/refractory (R/R) MM with centrally confirmed t(11;14) and received oral daily sonrotoclax (320 or 640 mg) and weekly dexamethasone (40 mg) until the end of treatment. Adverse events (AEs) were graded by CTCAE v5.0, and efficacy was assessed by the investigator per IMWG criteria.

Results : As of January 20, 2025, 14 and 36 evaluable patients were enrolled in sonrotoclax 320- and 640-mg cohorts, respectively; median follow-up (range) was 6.2 months (2.6-34.5 months) and 12.1 months (0.1-28.9 months), respectively. In the 320- vs 640-mg cohorts, respectively, median age (range) was 69.5 years (44-86 years) vs 69.0 years (48-80 years); 42.9% vs 52.8% were male; and 57.1% vs 75.0% were White. Patients had a median of 3 prior treatment lines in both the 320-mg (range, 1-7) and 640-mg (range, 1-12) cohorts; 78.6% and 66.7% of patients were refractory to 3 treatment classes, respectively. At the data cutoff date, 7 patients (50.0%) in the 320-mg cohort and 14 (38.9%) in the 640-mg cohort remained on treatment; progression was the most common reason for discontinuation (35.7% and 41.7%, respectively). The ORR (95% CI) was 64.3% (35.1%-87.2%) for 320 mg and 80.6% (64.0%-91.8%) for 640 mg, with very good partial response or better rates (95% CI) of 35.7% (12.8%-64.9%) and 55.6% (38.1%-72.1%), respectively. The median time to response was 0.7 months in both cohorts. Median (95% CI) duration of response was 5.9 months (1.8 months-not estimable [NE]) in the 320-mg cohort and 12.2 months (8.3-18.9 months) in the 640-mg cohort. Median (95% CI) progression-free survival was 6.6 months (2.9 months-NE) in the 320-mg cohort and 13.3 months (9.0-19.6 months) in the 640-mg cohort. The safety profile was tolerable and manageable for both cohorts. The most common TEAEs were fatigue (35.7%) in the 320-mg cohort, and insomnia (38.9%) and diarrhea (38.9%, all grade 1 or 2) in the 640-mg cohort. Grade ≥3 TEAEs occurred in 5 patients (35.7%) in the 320-mg cohort and 17 (47.2%) in the 640-mg cohort; serious TEAEs occurred in 3 (21.4%) and 10 (27.8%) patients, respectively. Grade ≥3 hematologic TEAEs occurred in 1 (7.1%) and 9 (25.0%) patients and grade ≥3 infections in 3 (21.4%) and 4 (11.1%) patients, respectively. Two patients (14.3%) in the 320-mg cohort and 2 (5.6%) in the 640-mg cohort died during the treatment-emergent portion of the study for reasons unrelated to sonrotoclax or dexamethasone (320 mg: pneumonia RSV and COVID-19; 640 mg: hypoventilation due to lung-involved progressive disease and metastatic pancreatic cancer). Four additional deaths occurred >30 days after the last 640-mg dose.

Conclusion: The all-oral combination of sonrotoclax + dexamethasone continued to show a tolerable safety profile, with low rates of infection and hematologic toxicity, and promising efficacy, with an 81% ORR in the 640-mg cohort, in this t(11;14)-positive R/R MM population. The study is ongoing; additional treatment combinations with sonrotoclax are being investigated.

O14- Burden and characteristics of infections in relapsed/refractory multiple myeloma patients treated with bispecific antibodies and the impact of immunoglobulin replacement

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Objective : Bispecific antibodies (BsAbs) targeting BCMA or GPRC5D have significantly improved outcomes in relapsed/refractory multiple myeloma (RRMM) but are associated with increased infection risk. In this analysis we aimed to describe infection incidence and characteristics as well as the role of immunoglobulin (Ig) replacement in a cohort of BsAb treated patients from a single center in Greece.

Methods : The analysis included 108 consecutive patients with RRMM treated with BsAbs (n=90 targeting BCMA and n=18 GPRC5d) starting treatment between 1/2023 and 4/2025. The data on infections were prospectively collected. Polyclonal IgG in patients with IgG myeloma was calculated by subtracting monoclonal protein from total IgG. Ig replacement strategy changed over time and was adopted routinely later during the study period.

Results : The median number of prior lines of therapy was 3. The median time on BsAb was 7.5 months (IQR 3.3-16.5) and the median follow up time was 8 months. At least one infection occurred in 71 (65.7%) patients; the cumulative risk of infection was 52%, 63% and 71% at 3, 6 and 9 months, respectively. This suggests a higher early risk for infection. The median time to first infection was 81 days and 75% of infectious episodes occurred within the first 3 cycles of therapy. The most frequent infection sites were upper (26%) and lower (27%) respiratory tract, GI (7%) and urinary tract (5%); the etiology was identified as microbial in 48% and viral in 18%. Most infections were grade 2 (52% of all patients) but in 13% were grade ≥3. In 13 (18%) patients BsAb therapy was discontinued after their first infectious episode. 58% of patients had ALC <1000/mm3 and 38% had increased LDH levels. At first infection, 70% of patients achieved disease remission. BCMA targeting BsAbs were associated with higher probability of infections (70% vs 44%, p=0.037) which occurred earlier than in non-BCMA BsAb. Higher number of prior lines was associated with numerically higher incidence of infections. The median number of infectious episodes per patient was 1, with 15% of patients having >3 Grade 2-5 infections. The incidence rate of infections was 12.3 per 100 person-months. 80% of the patients in our cohort received Ig supplementation; 40% started Ig replacement prophylactically; 39% of patients with infections were on Ig replacement at the time of first infection but 58% had polyclonal IgG<400 mg/dl at the time of the infection. An infection occurred in 73% of patients not receiving prophylactic Ig supplementation vs 22.5% of patients receiving Ig supplementation (HR:0.14, p<0.001). The use of prophylactic Ig reduced mostly grade 2 (9% vs 43%) (p<0.001) but had less impact on grade 3-5 infections (11% vs 12%). Both upper and lower respiratory tract infections were reduced with prophylactic Ig (12% vs 35% and 16% vs 34%) of both microbial (11% vs 37%) and viral origin (9% vs 23%).

Conclusion: The risk of infection is significant among patients with MM treated with BsAbs, especially BCMA targeting. Early prophylactic use of Ig supplementation decreases infection burden in patients treated with BsAbs; however, further optimization of prophylactic strategies is required.

O15- R-da-Epoch Versus R-Chop-21 In Primary Mediastinal Large B-Cell Lymphoma (Pmlbcl): Final Results Of A Real-Life Comparison With Consecutive Historical Controls In Greece Based On 334 Patients

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Objective : The intensified R-da-EPOCH regimen produced better outcomes than R-CHOP in PMLBCL, while minimizing consolidative radiotherapy (RT). However, there is no published direct randomized comparison of R-da-EPOCH vs R-CHOP. A few real-life comparisons have not used optimally selected controls and demonstrated borderline differences, while the escalation process is not strictly followed in many patients and this information is not recorded in detail. The objective of this study was to compare R-da-EPOCH with consecutive R-CHOP controls in a real-life multicenter setting in Greece.

Methods : R-da-EPOCH was adopted in all 167 consecutive patients with PMLBCL ≤65 years at a given, different timepoint in each of the 19 participating Centers, which were providing R-CHOP as standard of care until that time. An equal number of 167 R-CHOP controls were selected consecutively within each center starting from the most recent patient and going backwards, thus minimizing selection bias. The adherence to the strict R-da-EPOCH protocol was retrospectively evaluated according to the recorded drug doses and toxicity data.

Results : Patients' characteristics were absolutely comparable except of marginally older age and more frequent pericardial effusion in the R-da-EPOCH group. R-da-EPOCH was given strictly in 84/144 (58%) patients with available data. R-CHOP-14 was given in 22/167 patients of the control group (13%). Among R-CHOP-responders, 71% received RT compared to 11% R-da- EPOCH-responders. Disease progression or relapse was observed in 20/167 and 40/167 patients after R-da-EPOCH or R-CHOP. Four vs 0 patients developed AML; one patient developed classical Hodgkin lymphoma after R-CHOP. Only 8 patients died (all due to PD) after R-da-EPOCH versus 24 treated with R-CHOP (22 PD, 2 unrelated). All differences in 5- year survival outcomes were statistically significant in favor of R-da-EPOCH in univariate analysis: Freedom from progression (FFP) was 87.5% vs 75.9% (p= 0.0009), event-free survival (EFS) 84.7% vs 75.9% (p= 0.045), overall survival (OS) was 94.5% vs 87.2% (p= 0.027), and lymphoma-specific survival (LSS) 94.5% vs 87.7% (p= 0.039). After adjustment for prognostic model A (stage E/IV & LDH≥2x), R-da-EPOCH remained superior to R-CHOP regarding FFP [hazard ratio (HR) 0.49, p= 0.013], OS (HR 0.37, p=0.026) and LSS (HR 0.39, p=0.035), but was of marginal significance regarding EFS (HR 0.60, p=0.061). After adjustment for prognostic model B (stage E/IV & bulk), R-da-EPOCH remained statistically superior to R-CHOP only regarding FFP (HR 0.56, p= 0.037]. Although the HRs were clinically meaningful, the differences were of only marginal significance regarding OS (HR 0.50, p=0.106), LSS (HR 0.50, p=0.106), and EFS (HR 0.67, p=0.134).

Conclusion: We report for the first time a minimally biased comparison between the largest series of R- da-EPOCH and R-CHOP-21-treated patients with well-matched subgroups of consecutively treated patients. At the expense of 4/167 cases of tAML, R-da-EPOCH minimized the use of RT in a real-life setting and provided statistically or

numerically superior disease control and survival outcomes than R-CHOP with clinically meaningful reduction in HRs after adjustment for well-established prognostic factors. The real difference may be even larger as 13% of patients received R-CHOP-14 and 42% received R-da-EPOCH less intensively than defined per protocol.

O16- Survival Trends In Hodgkin Lymphoma (Hl) From 1980 To 2020: A 40-Year Experience From A Referral Center

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Objective : The treatment of HL has rapidly evolved between 1980 and 2020 and theoretically the patients' outcome should have been improved. However this has not been formally and definitely shown, while patient characteristics may differ according to time period. The aim of this study was to describe the outcome of patients with HL over consecutive time periods and investigate the effect of treatment evolution on disease control and survival.

Methods : We retrospectively analyzed 1795 patients treated between 1980 and 2020, divided into three distinct periods. During period A (1980-1989) early stage (ES) patients mainly received combined modality and advanced stages (AS) chemotherapy±radiotherapy, with MOPP-like gradually substituted by anthracycline-based regimens. During period B (1990-2008) anthracyclines were universally applied, while stem cell transplant was introduced as salvage. During period C (2009-2020) interim PET-based strategies were adopted for AS (BEACOPP intensification and RT minimization) and after 2017 for ES, while salvage strategies were optimized with the introduction of novel agents. Statistical endpoints were Freedom from Progression (FFP), Overall Survival (OS), Disease Specific Survival excluding deaths from other causes (DSS-I) and DSS excluding unrelated deaths but including deaths from secondary neoplasms (DSS-II) and Survival after Failure (SAF).

Results : Overall, 229, 876 and 688 patients were treated during periods A,B,C respectively. Patients in period C had significantly worse characteristics compared to patients in period B. Disease control improved significantly after 1990 but was not further improved after 2008 with the 10-year FFP estimated at 66.8%,77.3% and 77.1% for periods A,B,C. Despite similar disease control rate between the last two periods and the adverse characteristics of period C patients, the 10-year OS improved significantly from 71.3% to 84.7% and eventually 89.3% during periods A,B,C. Furthermore, there was statistically significant improvement in 10-year DSS-I from 73.3% to 87.4% and 92.3% among periods A,B,C respectively. The same improvement was observed regarding DSS-II. The 10-year SAF improved dramatically after 1990 and especially after 2008 from 37.9% to 52.6% and finally 66.3%. In multivariate analysis for periods B and C only, there was statistically significant improvement in OS, DSS-I and DSS- II but not in FFP during 2009-2020 compared to 1990-2008. AS and age ≥45 years were independent adverse prognostic factors for FFP, OS, DSS I and DSS II. Other adverse prognostic factors were anemia for FFP, OS and DSS-II and male gender for DSS-I with borderline significance.

Conclusion: Overall, a significant improvement in the outcomes of patients with HL was recorded after 1990 in our study. The most important finding was the impressive improvement of OS and DSS although some improvement in FFS was evident in younger patients. The incorporation of novel agents in the first-line and salvage setting, is expected to alter patients' outcome in the near future.

O17- Treatment Strategies, Outcome and Prognostic Factors of Very Late Relapses in Patients with Hodgkin Lymphoma after Initial Treatment with Chemotherapy ± Radiotherapy: A Hellenic-Italian Joint Study

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Objective : Very Late Relapses (VLR) in Hodgkin Lymphoma (HL) are defined as disease recurrences occurring ≥5 years after initial diagnosis. Due to the rarity of these events, very few data exist on the outcome and prognostication of VLRs after chemotherapy± radiotherapy (CT±RT). The aim of the current study is to describe treatment strategies adopted for patients with VLRs, define patients' outcome and identify relevant prognostic factors.

Methods : Patients with HL who experienced VLRs ≥5 years after treatment initiation with CT±RT, were identified retrospectively from the databases of 8 referral centers in Greece and Northern Italy. Statistical endpoints were the time to second treatment failure (TT2F), overall survival after relapse (O2S), disease specific survival after relapse excluding deaths from other causes (DSS2-I) and DSS2 excluding deaths from other causes and secondary neoplasms (DSS2-II). TT2F was defined as the time interval between salvage treatment initiation and treatment failure (defined as toxic death during salvage therapy or failure to achieve complete or partial remission) or second relapse or last of follow-up in second complete remission (CR2).

Results : : 157 patients with VLR were identified. The median age at relapse was 49.4 years; 23.6% of the patients relapsed >15 years after the initial diagnosis. The 10-year TT2F was 51.5%, while the 20-year O2S, DSS2-I and DSS2-II were 42.0%, 55.8% and 70.4% respectively. Salvage with a cross-resistant regimen did not significantly affect disease control and survival. In multivariate analysis, age ≥65 years, extranodal disease and anemia at relapse were independent adverse prognostic factors for all study endpoints. In patients ≤65 years old, intention to proceed to ASCT was independently associated with improved O2S, DSS2-I and DSS-II but not TT2F. We developed a prognostic model assigning 2 points to age ≥65 years, and 1 point to anemia and extranodal disease at relapse. Patients scoring 2-4 points (28.5% of the total patient population) had significantly compromised outcome across all endpoints. For patients ≤65 years, the model included anemia and extranodal disease at relapse. Patients treated without the intention to proceed to ASCT combining both adverse factors (only 9% of all patients) had markedly inferior outcomes. For patients intended to proceed to ASCT the presence of both adverse prognostic factors (23% of all patients) was associated with compromised outcome, but this difference was statistical significant only for DSS2-II.

Conclusion: Our study is the first specifically focusing on prognostication of the outcome of VLRs in HL with identification of relevant prognostic factors. While O2S in the population of patients with VLRs may seem suboptimal, DSS is excellent, reflecting the substantial contribution of deaths from unrelated causes. Our data suggest that ASCT should not be overlooked in eligible patients solely on the length of the initial CR, although more data are needed especially in the era of novel agents.

O18- The Prognostic Significance Of Serum B2- Microglobulin Levels (Sβ2m) In Primary Mediastinal Large B-Cell Lymphoma (Pmlbcl)

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Objective : Prognostic factors for the outcome of patients with PMLBCL are not well defined. Sβ2m levels is a well-established prognostic factor for several hematologic malignancies, but its role in PMLBCL is unknown. Only 3 small studies (27-35 patients) were reported prior to the rituximab era with the main conclusion that sβ2m levels are low in PMLBCL despite tumor bulk and questionable prognostic significance. We aimed to investigate the prognostic significance of sβ2m levels in a large series of PMLBCL patients in the rituximab era.

Methods : We analyzed 402 patients with PMLBCL treated with R-DA EPOCH or R-CHOP and selected based on the availability of pretreatment sβ2m levels in Hellenic, Israeli, Turkish, Saudi, Cypriot and Maltese centres. Sβ2m levels were analyzed as continuous variable in relation to other baseline features and as high versus low (>2.4 mg/L) in relation to the outcome. Freedom From Progression (FFP) was defined as time between treatment initiation and treatment failure (toxic death, primary refractoriness, PR with switch to alternative chemotherapy or relapse); deaths of unrelated causes were censored.

Results : Among 402 patients, 85 (21.1%) had elevated sβ2m levels (>2.4mg/L). Sβ2m correlated strongly with elevated LDH, PS (≥2), B- symptoms and bulky disease but not with age, gender, stage and specific anatomic localizations. However, even the former correlations did not persist after correction for multiple comparisons. Univariate Analysis: FFP was significantly inferior in patients with high β2m with 5-year FFP was 71.5% vs 84.4% (p=0.012). The difference was marked in patients treated with R-da-EPOCH [75.7% vs 90.3% (p=0.026)] but less marked in those treated with R-CHOP [69.6% vs 81.0% (p=0.109)]. In low-risk patients [no factors among extranodal disease or elevated LDH>2x (E-IV/LDH) or extranodal disease or bulk (E-IV/bulk), sβ2m levels had no impact on FFP. In contrast, elevated sβ2m levels were associated with inferior FFP in patients with at least 1 factor in either system. The 5-year FFP for patients with 1-2 adverse factors in either system and with sβ2m≤2.4 mg/L was 81.4-83.8% vs 62.4-63.8% for those with sβ2m >2.4 mg/L (p=0.011 and p=0.001 for E-IV/LDH and E-IV/bulk respectively). Multivariate Analysis: Sβ2m levels remained significant for FFP after adjustment for any of the two prognostic systems in the whole patient population (and also after adjustment for PS and B-symptoms). In R-da-EPOCH treated patients, sβ2m remained independent prognostic factor and displaced the prognostic systems. In R-CHOP-treated patients both prognostic systems remained valid, displacing sβ2m levels. The hazard ratios for sβ2m levels were ~1.78 in all patients and ~2.71 in R-ra-EPOCH treated patients but onlt ~1.45 (non-significant) in those treated with R-CHOP.

Conclusion: In contrast to previous information from small studies, sβ2m levels were high (>2.4 mg/L) in >20% of patients with PMLBCL. High sβ2m levels constituted a significant independent predictor of FFP in PMLBCL, especially in those treated with R-da-EPOCH and those bearing 1 or 2 other adverse prognostic factors.

O19- Adjusting Serum β2-Microglobulin Levels (sβ2m) According to Renal Function in Diffuse Large B-Cell Lymphoma (DLBCL): Impact on Prognostic Significance

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Objective : The International Prognostic Index (IPI) is the standard tool for prognostication in DLBCL. Sβ2m levels is a well-established prognostic factor for DLBCL using various cutoffs, including the recently established cutoff of 3 mg/L, which represented the median value of the corresponding patient population. Sβ2m levels are markedly influenced by the glomerular filtration rate (GFR). As most DLBCL patients are elderly, this may modify the true prognostic impact of sβ2m. We aimed to investigate the prognostic significance of sβ2m levels adjusted to renal function (RFA-sβ2m) compared to measured sβ2m levels in a large series of homogenously treated DLBCL patients in the rituximab era.

Methods : Among DLBCL patients treated with R-CHOP or similar regimens, 916 were selected based on the availability of pretreatment sβ2m and serum creatine levels, height and body weight data. Sβ2m levels were measured in mg/L. The RFA-sβ2m was calculated as the ratio between the observed sβ2m levels and the expected sβ2m level according to the calculated GFR. The analysis of the prognostic significance of sβ2m and RFA-sβ2m was performed using the previously defined cutoff of 3 mg/L for sβ2m and RFA-sβ2m quartiles (Q1-Q4) respectively. Freedom From Progression (FFP) was defined as time between treatment initiation and treatment failure; deaths of unrelated causes were censored.

Results : The median sβ2m levels were 2.9 mg/L [interquartile range (IQR) 2.08-4.49, range 1.05-46.30]. The median RFA-sβ2m was 1.68 (IQR 1.30-2.48, range 0.44-12.23), being strongly correlated with sβ2m (Spearman's rho 0.821, p<0.001). FFP was significantly worse in patients with sβ2m ≥3 mg/L with 2-year FFP of 64.0% vs 88.3% (p<0.001). Similar results were observed for RFA-sβ2m, with 2-year FFP rates of 90.7%, 87.6%, 72.4% and 56.6% for Q1-Q4 respectively (p<0.001). Among 465 patients with sβ2m <3 mg/L, 383 had RFA-sβ2m <1.68 (the observed median value) and 82 had RFA-sβ2m >1.68 with 2-year FFP of 91.1% versus 75.4% respectively (p=0.001). Among 417 patients with sβ2m ≥3 mg/L, 63 had RFA-sβ2m <1.68 and 354 had RFA-sβ2m >1.68 with 2-year FFP of 77.1% versus 61.8% respectively (p=0.029). When sβ2m (cutoff 3 mg/L) were analyzed together with IPI (0-1 vs 2 vs 3 vs 4-5) in multivariate analysis of FFP, both factors had independent prognostic significance (p<0.001 and p=0.001 respectively). Adjusted for IPI, the hazard ratio (HR) for sβ2m ≥3 versus <3 mg/L was 1.67 [95% confidence intervals (CI) 1.22-2.18]. When RFA-sβ2m was analyzed along with IPI in multivariate analysis of FFP, both factors had again independent prognostic significance (both p<0.001). Adjusted for IPI, the hazard ratios for Q4, Q3, and Q2 versus Q1 were 2.14 (95% CI 1.37-3.35; p=0.001), 1.46 (95% CI 0.92-2.30; p=0.05), and 0.99 (95% CI 0.58-1.56; p=0.85). RFA-sβ2m displaced sβ2m from the latter model.

Conclusion: Higher sβ2m Levels and RFA-sβ2m, reflecting the "correction" of sβ2m according to renal function, were significant independent predictors of FFP in DLBCL after adjustment for IPI. RFA-sβ2m further defined

subgroups with different outcomes with the subgroups established by the cutoff of 3 mg/L for sβ2m thus providing evidence of additive value based on biological considerations.

O20- Allogeneic Hematopoietic Cell Transplantation Experience in Chronic Lymphocytic Leukemia Cases

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Objective : The potent graft-versus-leukemia (GVL) effect of allogeneic hematopoietic cell transplantation (allo-HCT) offers the potential for long-term remissions in relapsed/refractory chronic lymphocytic leukemia (CLL).In particular,allo-HCT remains an important treatment option for selected patients with high-risk genetic features and those resistant to Bruton tyrosine kinase (BTK) and B-cell lymphoma-2 (BCL2) inhibitors,for whom therapeutic alternatives are limited .

Methods : Between April 2015 and March 2025,six patients who underwent allo-HCT and were followed at our center were retrospectively analyzed.Clinical and demographic data were obtained from hospital electronic records and patient charts.Patients under 18 years of age or those with incomplete medical records were excluded.

Results : The median age at diagnosis was 39 years (range: 26–54). Four patients were male (67%) and two female (33%). Two patients underwent allo-HCT within the last two years, while the remainder received transplants between 2015 and 2020. The median age at transplantation was 47 years. Comorbidity was present only in one patient (Sjögren's syndrome). One patient received a 9/10 matched unrelated donor transplant, one underwent haploidentical transplantation from a sibling, and the others received fully matched related donor grafts. Half of the patients underwent myeloablative conditioning (MAC), while the other half received reduced-intensity conditioning (RIC). Prior to transplantation, five patients had been treated with ibrutinib, and four with rituximab + venetoclax combination therapy. At transplant, three patients had progressive disease (PD) and three were in partial remission (PR).Following allo-HCT, two patients developed active disease. Minimal residual disease (MRD) positivity was observed in all patients post-transplant. Treatment response was achieved in five patients. The median number of prior therapy lines was 5.5. One patient had previously undergone autologous stem cell transplantation.A 17p deletion was identified in one patient. GVHD prophylaxis most commonly included methotrexate + cyclosporine.Two donor lymphocyte infusions (DLI) were administered to one patient with PD.One patient experienced graft failure, while two patients developed secondary loss of engraftment.Acute skin GVHD occurred in two cases, while no chronic GVHD was observed.CMV reactivation was detected in one patient.The day-100 survival rate after allo-HCT was 66.6%, while the overall survival rate was 50%.The median interval between diagnosis and allo-HCT was 77 months, and the median follow-up time was 78.5 months.The median time from diagnosis to first treatment was 1.2 months. In the single patient with progression, the time to progression was 60.4 months.Three patients died due to infectious complications (sepsis, invasive mucormycosis, fungal pneumonia).

Conclusion: The advent of novel therapies has led to a paradigm shift in CLL management and a marked decline in the use of allo-HCT.Given the risks of transplant-related morbidity and mortality,the decision to proceed with allo-HCT in CLL should be made with caution.With the availability of effective and well-tolerated targeted agents,allo-HCT has been shifted to later lines of therapy and is now generally considered a last-resort option for patients lacking alternatives.Nevertheless, next-generation agents such as the non-covalent BTK inhibitor have shown promising responses,but the reported median progression-free survival of 18 months in patients previously treated with both BTK and BCL2 inhibitors highlights the ongoing need for additional treatment options, including allo-HCT in appropriate candidates.

O21- Prognostic Role of Fibrinogen in Patients with Neutropenic Sepsis

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Objective : Sepsis remains a major cause of morbidity and mortality in patients with hematologic malignancies who develop neutropenia. This study aimed to evaluate the associations between demographic, clinical, and laboratory parameters and mortality in neutropenic patients with hematologic malignancies during sepsis.

Methods : The medical records of 105 neutropenic patients with hematologic malignancies diagnosed with sepsis in the Intensive Care Unit of Ege University between 2019 and 2024 were retrospectively reviewed. Demographic characteristics, comorbidities, sepsis focus, laboratory findings, organ dysfunction, appropriate antibiotic use, and 30-day mortality were recorded. Parameters associated with mortality were analyzed using chi-square, Fisher's exact, Student's t-test, and Mann–Whitney U test.

Results : Of the 105 patients included, 67 (63.8%) were male and 38 (36.2%) were female, with a mean age of 51.2±18.6 years. Comorbidities were present in 74.3% of patients, most commonly hypertension (26.7%). The most frequent focus of sepsis was pulmonary infections (44.8%). At ICU admission, 69.5% required vasopressors, and 57.1% developed respiratory failure during follow-up. Gram-negative bacteria were the most common pathogens (48.6%), and bacteremia was detected in 52.3%. The 30-day mortality rate was 70.2%. Mortality was significantly associated with low albumin ($p=0.027$), low systolic blood pressure (SBP, $p=0.013$), high heart rate ($p=0.016$), higher SOFA score ($p<0.001$), prolonged aPTT ($p=0.024$), low fibrinogen ($p<0.001$), elevated creatinine ($p=0.008$), low uric acid ($p=0.005$), elevated CRP ($p=0.005$), lower neutrophil count ($p=0.002$), thrombocytopenia ($p<0.001$), and elevated lactate ($p<0.001$). In multivariate analysis, only low fibrinogen level remained an independent risk factor for mortality, with an odds ratio of 0.994 (95% CI [0.988–1.000]).

Conclusion: Sepsis in neutropenic patients with hematologic malignancies is associated with high mortality rates. Low fibrinogen, thrombocytopenia, high lactate, and elevated SOFA score were strongly associated with mortality. Among these, fibrinogen was identified as the sole independent protective factor. Our study demonstrated that each unit increase in fibrinogen reduced mortality risk by approximately 0.6%. Markedly decreased fibrinogen levels during sepsis may reflect both the severity of systemic inflammation and the development of consumptive coagulopathy. The finding that fibrinogen remained the only independent predictor highlights its potential as a valuable biomarker for early mortality prediction in clinical practice. Routine monitoring of fibrinogen in neutropenic patients with hematologic malignancies may facilitate early risk stratification and individualized treatment strategies. Furthermore, prospective studies are warranted to explore the potential of fibrinogen as a therapeutic target.

O22- Clinical Spectrum and Prognostic Insights of Systemic Mastocytosis: A Single-Center Experience

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Objective : Systemic mastocytosis (SM) is a rare hematological neoplasm characterized by mast cell proliferation and organ infiltration. Its clinical spectrum ranges from indolent forms to aggressive variants, with heterogeneity in presentation and prognosis. Morbidity frequently arises from skeletal complications, organomegaly, and cytopenias. This study aimed to evaluate demographic, clinical, laboratory, skeletal, and survival characteristics of SM patients and to identify prognostic factors in a single-center cohort.

Methods : Fifty-five patients diagnosed with SM between 2010–2025 were retrospectively analyzed. Demographics, WHO/ICC subtype distribution, B and C findings, serum tryptase levels, c-KIT mutation status, DEXA T-scores, fracture history, and allergy were documented. Therapeutic strategies (tyrosine kinase inhibitors, omalizumab, cladribine, symptomatic measures) and survival were assessed. Categorical variables were analyzed with chi-square or Fisher's exact test, continuous with Mann–Whitney U, correlations with Spearman analysis, mortality predictors with logistic regression, and prognostic performance with ROC curves.

Results : The cohort included 30 men (54.5%) and 25 women (45.5%), with median age 42 years (IQR 34–53; range 14–75).The most frequent subtype was indolent SM (51.6%), followed by aggressive SM (22.6%),smoldering SM (9.7%),SM-AHN (6.5%),and cutaneous mastocytosis (9.7%). B findings occurred in 36.4% and at least one C finding in 20%. Median serum tryptase was 24.7 ng/mL (IQR 13.2–61), with mean maximum 59 ng/mL. Tryptase levels significantly differed across subtypes (p=0.017) but showed no correlation with mortality (p=0.934) or eosinophilia (r=0.105; p=0.49).c-KIT positivity was reported in 5.1%. Skeletal involvement was common: median DEXA T-score −2.1, osteoporosis 23.6%, osteopenia 23.6%, and fractures 20.4%. Allergic history was present in 58.7% of patients, most frequently bee allergy (23.6%).Presence of any allergy was significantly associated with mortality (Fisher's exact p=0.008), and bee allergy showed a higher tendency toward poor outcomes. At last follow-up, 50 patients (90.9%) were alive and 5 (9.1%) had died.Mortality was significantly higher in advanced subtypes (ASM/SM-AHN/MCL; p=0.033), while C findings showed borderline association (p=0.079).Patients with C findings were significantly older, linking age with disease progression. Multivariate logistic regression revealed no independent predictors. ROC analysis identified age at diagnosis as the strongest mortality predictor (AUC=0.87, cutoff >61 years, sensitivity 80%, specificity 92%, LR+=9.8).Elevated leukocyte count was the second strongest factor (AUC=0.77, cutoff >18,420/µL, sensitivity 80%, specificity 92%, LR+=9.6).A composite score (age >61 or leukocytosis >18,420/µL) provided a clinically simple threshold, though its performance (AUC=0.72) was inferior to the individual variables.By contrast, tryptase (AUC=0.52), DEXA T-score (AUC=0.15), and hemoglobin (AUC=0.07) lacked prognostic value.

Conclusion: In this single-center experience, SM was diagnosed at relatively young ages, with indolent disease as the predominant subtype. Skeletal complications and fractures were notable, highlighting the need for routine bone assessment.Advanced subtypes were clearly associated with increased mortality.Age >61 years and leukocytosis >18,420/µL emerged as robust prognostic markers, while allergy history—particularly bee allergy—also carried prognostic significance.Serum tryptase did not predict survival but reflected disease subtype severity.The coexistence of older age and C findings emphasized the role of age in disease progression.Overall survival aligned with previous literature.These findings support incorporating age, leukocyte count,and allergy status into clinical risk stratification and underscore the importance of prospective multicenter studies to refine prognostic models in systemic mastocytosis.

O23- Deletion 17P, And Igh High Risk Translocations Along With Chromosome 1 Abnormalities Are The Strongest Survival Predictors In Multiple Myeloma: A Real-World Validation By The Greek Myeloma Study Group

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Objective : Chromosome 1 (chr1) copy number abnormalities (CNAs), including 1q21 gain/amplification (1q21+) and 1p32 deletion (del1p32), are associated with poor prognosis in Multiple Myeloma (MM). A novel IMS/IMWG definition of high-risk MM (HRMM) was recently published and includes a) del17p and/or TP53 mutations; b) IgH-related high-risk translocations (IgH-HRT) -i.e. t(4;14), t(14;16), and t(14;20)-concurring with 1q21+ and/or del1p32; c) monoallelic del1p32 with 1q21+ or biallelic del1p32; and d) β2-microglobulin (β2M) >5.5 mg/dL with serum creatinine (sCr) <1.2 mg/dL.Our objective was to validate the proposed prognostic factors for HRMM in a large cohort of newly diagnosed MM (NDMM) patients treated in real-world (RW).

Methods : We analyzed 1538 NDMM patients (pts) [M/F: 773/765; median age: 66 (33-91); IgG: 922, IgA: 399, light chain: 188, IgD: 11, non-secretory: 15, IgM: 2, IgE:1)] diagnosed from 2003-2023 and included in the Greek Myeloma Study Group registry. All pts had complete RISS/R2ISS data, while data for 1p were available in 720 pts (47%).

Results : Cytogenetics were distributed as follows: low risk (including pts with unknown 1p status): 947 pts (61%),1q21+ and/or del1p32 only: 301 (20%), IgH-HRT combined with 1q21+ and/or del1p32: 66 (4%), IgH-HRT: 70 (5%), del17p (alone or combined with other aberrations): 154 (10%); β2M >5.5mg/dL with normal sCr occurred in 61 pts (5.3%). Of total, 1340 (88%) were treated with novel agents; 588 (38%) received lenalidomide plus PI-based or daratumumab-based regimens; 487 (32%) underwent autologous transplantation. After a median follow up of 60.2 months (95% CI: 56-65), 675 (44%) pts died. Median PFS and OS were 31 months (95% CI: 29-33) and 79 months (95% CI: 72-86), respectively and differed significantly among risk groups (p<0.001). Patients with IgH-HRT plus1q21+ and/or del1p32 and pts with del17p had significantly shorter PFS and OS compared to low-risk pts, to pts with sole IgH-HRT or single 1q21+and/or del1p32 (PFS: 18 and 20 months, vs. 35, 35 and 29 months, respectively and OS: 36 and 39 months, vs. 94, 93 and 76 months, respectively; p<0.05). In the univariate analysis, 1q21+and/or del1p32 with additional IgH-HRT, del17p, abnormal LDH, ISS, RISS and R2ISS were significant prognosticators for OS (p<0.05); β2m >5.5 mg/dL with normal sCr was marginally significant (p=0.1). In the multivariate analysis, IgH-HRT plus 1q21+ and/or del1p32 and del17p were significant prognosticators for OS (HR: 2.75, 95% CI:1.7-4.5, p< 0.001 and HR: 2.76, 95% CI: 1.9-3.9, p<0.001, respectively); C-index for del17p and IgH-HRT plus 1q21+ and/or del1p32 were 0.73 and 0.71, respectively and outperformed the C-index of ISS, RISS and R2ISS that was 0.61, 0.61 and 0.62, respectively.

Conclusion: In conclusion, we confirmed that, in RW, del17p and IgH-HRT combined with chr1 CNAs are the most significant prognostic factors for OS outperforming the predictive value of staging systems. In contrast, single IgH-HRT or isolated chr1 abnormalities did not show a negative impact on OS, suggesting that, the combination of primary and secondary genetic “hits” plays a critical role in MM outcomes. Notably, del17p alone or combined with other aberrations, retained its prognostic significance confirming its pivotal prognostic role in OS of MM patients.

O24- Serum Fas Ligand (sFasL) Levels in patients with WM: Clinical Correlations

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Objective : Soluble Fas (sFas), a member of the TNF family, has been shown to block Fas ligand (FasL)–induced apoptosis in vitro and promote autoimmune manifestations in vivo, suggesting a possible role in lymphoproliferation and autoimmunity. Dysregulation of this pathway has been linked to lymphoproliferative diseases, but data on FasL involvement in WM remain limited. Tumor-associated macrophages (TAMs), particularly those expressing CD163, have recently been implicated as prognostic tools in WM. (Gkiokas et al. Tumor-Associated Macrophage (TAM)-Related Cytokines, sCD163, CCL2, and CCL4, as Novel Biomarkers for Overall Survival and Time to Treatment in Waldenstrom's Macroglobulinemia: Emphasis on Asymptomatic WM). The purpose of this study was to evaluate serum FasL levels in patients with WM and to investigate their associations with clinical characteristics, hematologic parameters, and immunological biomarkers (TAMs related cytokine).

Methods : Fifty patients with WM (26 women, 52%; 24 men, 48%) with a median age of 63 years (range: 42–91) at diagnosis were included, along with 15 healthy individuals (His). Medical records were reviewed after obtaining patients' informed consent. FasL concentrations were measured in frozen serum samples using an enzyme-linked immunosorbent assay (ELISA). Twenty-three patients required therapy at the time of diagnosis while the rest were asymptomatic. The median WBC count was 6,775 K/μL (range: 270–23,000), the monocytic count 450 K/μL (range: 101–840), hemoglobin (Hb) 11.55 g/dL (range: 5.7–15.2), platelets 212 K/μL (range: 50–472), β2-microglobulin (B2M) 3.2 g/dL (range: 0.6–9.9), IgM 1,590 g/L (range: 38–11,040), and the FLCR 2.42 g/dL (range: 1.03–164.4). Splenomegaly was present in 6/50 patients (12%) and lymphadenopathy in 7/50 (14%). Elevated LDH was observed in 11/50 (22%), extranodal disease in 2/50 (4%), and a positive direct Coombs test in 3/50 (6%). The median CD163 level was 27,230 pg/mL (range: 16,696–97,286), CCL2 514.29 pg/mL (range: 7–1,671), CCL4 262 pg/mL (range: 0–2,463), while the CD163/IL-10 ratio was 83 (range: 0.6–867) and the CD163/CCL4 ratio 94 (range: 13–1,377). Statistical analysis was performed using SPSS software v.29.

Results : Median sFasL levels in WM patients were 27 pg/mL (range: 0.2–520 pg/mL), significantly higher than in HIs, who had median levels of 14.5 pg/mL (range: 0–58 pg/mL) ($p<0.01$). Correlation analysis revealed significant associations of FasL with lymphadenopathy ($r=0.325$, $p=0.034$), monocyte count ($r=0.576$, $p=0.005$), and hemoglobin ($r=0.401$, $p=0.042$), and an inverse correlation with white blood cell count ($r=-0.401$, $p=0.042$). Further evaluation using previously measured biomarkers showed positive correlations between FasL and CCL4 262 pg/ml, range: 0-2463 pg/mL, $r=0.463$, $p=0.017$), and negative correlations with the ratios CD163/CCL4 median 83, range: 0,6-867, $r=-0.554$, $p=0.005$) and CD163/IL10 median 94, range: 13-1377 , $r=-0.425$, $p=0.021$). These findings suggest interactions between FasL signaling, monocyte/macrophage activation, and the cytokine milieu in WM pathophysiology.

Conclusion: In summary, WM patients exhibit elevated serum FasL levels compared to healthy controls, with correlations to clinical features and immunoregulatory markers. These results support a potential role for FasL as a biomarker of disease activity and immune dysregulation in WM, warranting further investigation into its mechanistic contributions and therapeutic relevance.

O25- Prognostic Significance of Serum Soluble Fas Ligand (sFasL) and Its Association with IL-8 in Multiple Myeloma

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Objective : Fas Ligand (FasL) is a transmembrane protein that binds the Fas receptor, inducing apoptosis directly or via its soluble form. In MM, FasL has been linked to IL-6 expression, though its prognostic role is unclear. IL-8 contributes to disease progression by promoting bone destruction and modulating the tumor microenvironment. FasL can stimulate IL-8 production, sometimes via caspase-8 independent mechanisms, promoting inflammation and leukocyte recruitment. The aim of the study was to evaluate the clinical significance of serum soluble FasL (sFasL) and soluble IL-8 (sIL-8) levels in MM patients.

Methods : The study included 191 MM patients, comprising 66 with smoldering MM (SMM) and 53 with newly diagnosed symptomatic MM. The median age was 68 years (range: 31–87), with 56% women. Immunoglobulin types were IgG (64%), IgA (23%), light-chain (10%), and others (3%). Among symptomatic MM patients, ISS stages 1, 2, and 3 accounted for 30%, 40%, and 30%, respectively. Clinical characteristics were collected from medical records after informed consent. Serum sFasL levels were measured in frozen sera from SMM and symptomatic MM patients at diagnosis using ELISA (Duoset, R&D Systems). Sera from 34 healthy individuals were also analyzed. The median sFasL value served as the cut-off for survival analysis, defining high levels as above the median. The ratio of sFasL to sIL-8 was calculated and the first – quantile was used as cut off point. Statistical analyses were conducted using SPSS v.29.

Results : Median serum sFasL in SMM patients was 28.76 pg/ml (range: 0–1902) and in healthy controls 54.74 pg/ml (range: 1.88–1889); It was significantly lower in symptomatic MM patients 15.05 pg/ml (range: 0–1889), p=0.001. sIL-8 levels were 135 pg/mL (range: 6–1795) in SMM patients and 155.5 pg/mL (range: 1–1557) in MM patients, while they were 91 pg/mL (range: 0–1795.8) in HIs (p=0.001). No significant difference was observed between sIL-8 levels in SMM and MM patients. In SMM patients, sFasL correlated with BMINF (r=-0.226, p=0.043), vitamin B12 (r=0.278, p=0.034), IL-8 (r=0.433, p=0.001), and β2-microglobulin (r=-0.296, p=0.02). The sFasL/IL-8 ratio (median 52, range 0–5358) also correlated with TTP (p=0.000064). Lower sFasL levels were associated with shorter TTP (p=0.0005), but no correlation with OS was observed (p=0.109). A prognostic model (FaSMMr) was generated by replacing bone marrow infiltration (BMINF) in the SWOG 2/20/20 score with sFasL levels; it included sFasL below median, immunoglobulin >2 g, and free light chain ratio >20. SMM patients were stratified into low, low-intermediate, intermediate, and high-risk groups. Low and low-intermediate groups showed TTP exceeding 10 years, whereas intermediate and high-risk groups progressed in 78 and 50 months, respectively (p=0.001).

Conclusion: Serum sFasL levels are significantly lower in symptomatic MM patients and are associated with disease progression in SMM. Incorporating sFasL into the FaSMMr model alongside immunoglobulin levels and free light chain ratio improves risk stratification, allowing identification of patients at higher risk of rapid disease progression. The sFasL/IL-8 ratio also correlates strongly with time to progression, highlighting the prognostic relevance of both markers.

O26- Ten-year single-center experience in patients with immune thrombocytopenia

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Objective : Immune thrombocytopenia (ITP) is an acquired autoimmune disorder characterized by isolated thrombocytopenia. While primary ITP constitutes the majority of cases, secondary ITP may develop in association with commonly known viral infections, autoimmune disorders, pregnancy, or other underlying conditions. This study aimed to evaluate the demographic characteristics, underlying causes, treatment patterns, and complications of ITP patients diagnosed and followed in our center over a ten-year period.

Methods : We retrospectively analyzed the medical records of patients diagnosed with ITP in the Hematology Department of Sadi Konuk Research and Training Hospital between 2015 and 2025. Data on demographics, etiology, clinical presentation, treatment modalities, and complications were collected. Patients were categorized into primary and secondary ITP groups based on etiology.

Results : A total of 239 ITP patients were included in the analysis, with a median age of 43 years. Of these, 192 (80.3%) had primary ITP, while 47 (19.7%) had secondary ITP. Among secondary ITP cases, the most common causes were pregnancy (n=13), autoimmune disorders (n=10),infections such as human immunodeficiency virus (HIV) (n=11), covid (n=5) ,helicobacter pylori (n=3) ,hepatitis C (n=2),.Other less common causes were monoclonal gammopathy of undetermined significance (MGUS) (n=1),langerhans cell histiocytosis (n=1) and lymphoma(n=1). Median hemoglobin, platelet level and white blood cell count were 13.4 gram/deciliter, 12.000 per microliter, 5750 per microliter respectively. Clinically, 183 patients presented with minor bleeding such as petechiae, ecchymosis and purpura whereas 74 patients had symptoms consistent with moderate bleeding, including epistaxis, vaginal or gingival bleeding. Severe bleeding was noted in 3 patients. 227 patients (94.9%) required treatment. 90% of these 227 patients was required treatment at the time of diagnosis, the remaining 10% of them were treated during follow-up. First-line therapy primarily included corticosteroids (n=239). Subsequent treatments consisted of eltrombopag (n=66), rituximab (n=28), immunosuppressive agents (n=16), romiplostim (n=4), and splenectomy (n=23). Supportive therapy methods were applied to clinically indicated groups. 82 patients required intravenous immunoglobulin treatment while a small percentage was treated with antifibrinolytics such as tranexamic acid (n=13). The patients received a median of 2 lines of treatment (range, 1-5) Thrombosis was documented in 9 patients, including deep vein thrombosis in 6, cerebral embolism in 2, and renal artery thrombosis in 1 patient.

Conclusion: In our study, secondary ITP represented approximately one-fifth of all ITP cases. Pregnancy and HIV were the leading etiologies. Most patients required multi-line therapy, with thrombopoietin receptor agonists and rituximab frequently used in refractory cases. Complications were relatively uncommon but clinically significant. These findings marks the heterogeneous nature of secondary ITP and highlights the need for individualized treatment strategies.

O27- Early-Onset Myelofibrosis with Refractory Iron Deficiency Anemia in a Young Adult with PHOAR2-Enteropathy Syndrome: A Rare Case

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Objective : PHOAR2-enteropathy syndrome (PHOAR2E) is a rare genetic disorder caused by mutations in the SLCO2A1 gene, and is characterized by primary hypertrophic osteoarthropathy (PHO) and/or chronic nonspecific ulcers (CNSU) of the small intestine. The classical triad of PHO consists of digital clubbing, pachydermia, and periostosis, whereas additional clinical manifestations may include large-joint arthropathy, hyperhidrosis, seborrhea, and acne. Patients with CNSU most commonly present with chronic unexplained anemia, abdominal pain, and edema secondary to hypoalbuminemia. Here, we describe a young male patient with PHOAR2E who developed early-onset myelofibrosis during the evaluation of refractory iron deficiency anemia (IDA), with the aim of raising clinical awareness of this rare syndrome.

Methods : Case: In December 2024, a 23-year-old male patient was referred to hematology outpatient clinic due to transfusion-dependent anemia. Despite continuous oral iron therapy since early childhood, his IDA remained refractory, requiring at least two transfusions annually. He also reported recurrent abdominal pain and recurrent dermatological manifestations, including acne and seborrheic dermatitis. On physical examination, coarse facial features, pachydermia, seborrhea, digital clubbing, splenomegaly, and peripheral edema were noted. Laboratory evaluation revealed severe anemia (hemoglobin 7.1 g/dL), low ferritin (16 ng/mL), markedly elevated erythropoietin levels (>1500 mIU/mL), hypoalbuminemia (2.1 g/dL), and persistently low transferrin saturation despite recent transfusion and intravenous iron supplementation. Abdominal imaging confirmed splenomegaly. A bone marrow biopsy performed in August 2023 demonstrated hypercellularity (100%) with overt myelofibrosis, while colonoscopy revealed multiple polypoid lesions in the terminal ileum without ulceration. Family history was notable for parental consanguinity. Bone marrow next-generation sequencing (NGS) revealed a homozygous SLCO2A1 variant (c.547G>A, p.Gly183Arg; NM_005630.3), which was classified as pathogenic according to the American College of Medical Genetics and Genomics (ACMG) guidelines. This mutation has previously been reported in association with PHOAR2-enteropathy syndrome and is consistent with an autosomal recessive inheritance pattern.

Results :

Conclusion: This case underscores the clinical heterogeneity of PHOAR2-enteropathy syndrome and highlights its potential to present with rare hematological complications such as myelofibrosis. The coexistence of refractory iron deficiency anemia and early-onset myelofibrosis in a young adult harboring a pathogenic SLCO2A1 mutation is exceedingly rare and only sporadically described in the literature. Indeed, there are reports of patients with SLCO2A1-related primary hypertrophic osteoarthropathy developing transfusion-dependent anemia and bone marrow fibrosis—most notably a 21-year-old with a homozygous SLCO2A1 variant presenting with progressive transfusion dependency and myelofibrosis. Additionally, chronic enteropathy linked to SLCO2A1 has been documented to cause refractory iron deficiency anemia and hypoproteinemia, with pathogenic variants identified in consanguineous cases. Prompt recognition and genetic evaluation—particularly in consanguineous populations with syndromic features—are critical to prevent diagnostic delays, optimize management strategies, and provide appropriate genetic counseling.

ABSTRACTS
POSTER PRESENTATIONS

P1- Sarcoid-like Reaction Following Treatment of Primary Mediastinal Lymphoma: The Importance of Histological Documentation

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Objective : Sarcoid-like reactions (SLRs) occur in 4–14% of patients with a history of lymphoma, typically within the first two years following the completion of treatment. Prompted by an interesting patient case, we highlight the importance of histological investigation in suspected lymphoma relapses.

Methods : A 35-year-old male of Pakistani origin was diagnosed with primary mediastinal large B-cell lymphoma (PMBCL) during the evaluation of a mediastinal mass. He received six cycles of immunochemotherapy with R-dose-adjusted-EPOCH (rituximab, etoposide, prednisolone, vincristine, cyclophosphamide, doxorubicin) and achieved complete metabolic remission. A PET/CT scan three months later revealed hypermetabolic nodular pulmonary lesions without hypermetabolic lymph nodes, which increased in size and number by the six-month follow-up PET/CT. Despite multiple attempts for histological evaluation via bronchoscopy and thoracoscopy being inconclusive, an open lung biopsy ultimately revealed non-necrotizing granulomas.

Results : Specifically, the tissue specimen presented dense lymphohistiocytic infiltration and non-necrotizing granulomas with multinucleated giant cells and mature plasma cells, without monoclonality or IgG4 positivity, and with preserved immune architecture. No pathogenic microorganisms or evidence of lymphomatous infiltration were found. Further evaluation for pulmonary tuberculosis (cultures, PCR, QuantiFERON®) was negative, and no abnormalities were detected in testing for autoimmunity or serum angiotensin-converting enzyme levels. The overall findings were attributed to an SLR, especially in the absence of systemic sarcoidosis manifestations. Due to worsening respiratory symptoms (cough, dyspnea, hypoxemia), the patient was started on prednisone at 30 mg/day, which led to immediate symptom relief, followed by slow tapering of the dose. A follow-up chest X-ray revealed almost complete resolution of the pulmonary lesions.

Conclusion: The appearance of hypermetabolic lesions in the lungs or other organs on PET/CT in patients with lymphoma in complete remission mandates histological confirmation before assuming relapse. If SLRs are recognized, histologically confirmed, and correlated with clinical and laboratory findings, unnecessary chemotherapy can be prevented. In hematology practice, awareness of SLR is important when interpreting post-treatment PET/CT findings in lymphoma survivors.

P2- From Indolent to Aggressive: TP53 and MECOM Mutations Driving Rapid Transformation of Polycythemia Vera to AML

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Objective : Polycythemia vera (PV) is a condition of a usually of indolent course. Transformation to acute myeloid leukemia (AML) has a low incidence of 2-5% at 15 years. Mutations of TP53 and MECOM are associated with leukemic progression and poor prognosis. We report the case of a patient with PV rapidly progressing to TP53 and MECOM-mutated AML

Methods : Case presentation

Results : A 75-year-old man presented to the outpatient department with acute respiratory failure and fever. He had been diagnosed with PV 3.5 years earlier. While in remission under hydroxyurea, he reported a loss of follow up and cessation of treatment during the last three months. Other than that, he suffered from chronic obstructive pulmonary disease. A complete blood count revealed remarkable leukocytosis at 597x109/L, a hemoglobin of 6.5 g/dL, and a platelet count of 89x109/L. A chest CT scan was negative for embolism or pneumonia, while a heart ultrasound was normal as well. The peripheral smear examination revealed a 70% percentage of myeloblasts. The patient underwent a bone marrow aspiration and biopsy and was started on hydroxyurea and cytarabine for cytoreduction. The initial bone marrow flow cytometry revealed 40% blasts, with increased monocytes at 33% (10% were immature). The karyotype revealed two clones, one with 12 cytogenetic abnormalities and one with six. A chromosome 3 abnormality leading to MECOM gene rearrangement was confirmed with fluorescent in situ hybridization. Next generation sequencing revealed a JAK2 V617F mutation with a variant allele frequency (VAF) of 43%, a TP53 (VAF, 96%), and a PTPN11 mutation (VAF, 43%), along with nine other mutations (loss of HRAS, RUNX1, BRAF, WT1, ETNK1, KRAS, EZH2 and amplification of U2AF1). The patient experienced a grade 2 tumor lysis syndrome after the first cytarabine infusion. He underwent a dialysis session, with normalization of his biochemical parameters. He had four more cytoreductive infusions of cytarabine over a period of one month achieving cytoreduction (WBC, 23x109/L), but with transfusion dependent anemia and thrombocytopenia. After recovering from a respiratory infection from an extremely resistant Klebsiella pneumonia and Acinetobacter baumanni, he was started on azacitidine and venetoclax, but treatment was halted due to respiratory failure attributed to a fungal lung infection, completing seven days of azacitidine and restarting venetoclax on C1D16. He was intubated due to acute respiratory failure on C1D20. After one month in the intensive care unit (ICU) a bone marrow aspiration showed a blast count of 9%, with no improvement in his hematological parameters, achieving a short-term partial remission but upon a new rise of the blast count he was deemed unfit for a second treatment cycle due to recurrent infections with highly resistant pathogens. The patient died after 39 days in ICU.

Conclusion: This case highlights the fact that adverse molecular findings, like TP53 and MECOM mutations, can transform a rather indolent myeloproliferative neoplasm like PV, into a very aggressive AML with poor prognosis. When this clonal evolution occurs, the myeloproliferative element causes remarkable elevation in white blood cell count, leading to higher risk of leukostasis.

P3- Pomalidomide, cyclophosphamide and dexamethasone for relapsed/refractory multiple myeloma; a single-center experience

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Objective : Pomalidomide, a third-generation IMiD, has shown efficacy in relapsed/refractory multiple myeloma (RRMM). The addition of cyclophosphamide to pomalidomide and dexamethasone (PCd) has been explored as a potential therapeutic option in this challenging setting.

Methods : We conducted a retrospective analysis of RRMM patients treated with PCd in the Department of Clinical Therapeutics, Athens, Greece. Eligible patients had histologically confirmed MM, received ≥1 prior therapy, and experienced disease progression.

Results : A total of 45 RRMM patients were treated with PCd in our department, with a median of 2 prior lines of therapy. The median follow-up from the time of diagnosis of symptomatic MM was 5.9 years and it was 13.3 months from the initiation of PCd. The ORR was 46.7% and the DCR was 66.7%. The median TTNT, PFS and OS were 14.6 months, 9.0 months and 21.0 months, respectively. Age, number of prior lines of therapy and exposure to lenalidomide at the immediate prior line did not seem to impact patient outcomes. On the other hand, patients harboring expanded high-risk cytogenetics at MM diagnosis, experienced particularly worse PFS (aHR = 3.02, 95% CI: 1.31 – 6.97) and DCR (42.9% vs 77.4%, p = 0.039), compared to those with no abnormalities. Finally, the most common severe grade 3/4 toxicities were neutropenia.

Conclusion: The addition of cyclophosphamide to Pd in moderately to heavily pretreated RRMM patients showed promising efficacy, supporting PCd as a potential therapeutic option in real-world clinical settings.

P4- Prevalence and Characteristics of Peripheral Neuropathy in Patients with Asymptomatic Monoclonal Gammopathy: An Ongoing Prospective

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Objective : To determine the prevalence and electrophysiological characteristics of PN in a large cohort of patients with asymptomatic monoclonal gammopathy, and to identify potential contributing factors.

Methods : This is an ongoing, non-interventional, prospective cohort study aiming to screen approximately 1,500 patients with asymptomatic monoclonal gammopathy for PN. All participants are assessed for neuropathic symptoms using the Michigan Neuropathy Screening Instrument (MNSI), a validated 15-item questionnaire (Yes/No format). Patients with MNSI ≥4, and those with MNSI <4 without recognized PN risk factors, undergo detailed neurological examination and standardized electrophysiological evaluation (EDX), including nerve conduction studies (NCS), sympathetic skin response (SSR) testing, and, when indicated, electromyography (EMG). PN is classified as large fiber PN, autonomic dysfunction, or both, and its type (axonal vs. demyelinating) is documented.

Results : To date, 320 patients have been enrolled (42.8% male, mean age 67 years): 64.3% MGUS (72.3% IgG, 14.1% IgA, 6.3% IgM, 7.3% light chain), 23.9% SMM, and 11.8% aWM. Among them, 217 patients (68%) had no common PN risk factors; 82 patients (25.6%) had MNSI ≥4. Electrophysiological evaluation has been completed in 105 patients (41.9% male, mean age 66 years), of whom 77 (73%) had no PN risk factors. In the total EDX-tested cohort, 23 patients (21.9%) had large fiber PN, 42 (40%) had autonomic dysfunction, and 53 (50.5%) had large fiber PN and/or autonomic dysfunction. In the no-risk-factor subgroup, 13 patients (16.9%) had large fiber PN, 25 (32.5%) autonomic dysfunction, and 34 (44.2%) large fiber PN and/or autonomic dysfunction. Notably, 19 patients were asymptomatic (MNSI = 0), yet 4 (21.1%) had large fiber PN, 4 (21.1%) autonomic dysfunction, and 7 (33.3%) large fiber PN and/or autonomic dysfunction. Only one patient without PN risk factors had demyelinating neuropathy; all others exhibited length-dependent axonal sensory or sensorimotor neuropathy.

Conclusion: In this interim analysis, PN was present in approximately 20% of patients with asymptomatic monoclonal gammopathy who had no other PN risk factors. Large fiber and autonomic involvement may be subclinical, emphasizing the importance of systematic screening in this population.

P5- Real-World Use and Effectiveness of Polatuzumab Vedotin Plus R-CHP in Newly Diagnosed Stage IV Extranodal Diffuse Large B-Cell Lymphoma: Single-Center Experience from Greece

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Objective : To evaluate the real-world effectiveness and safety of polatuzumab vedotin in combination with R-CHP as first-line therapy in elderly patients with newly diagnosed stage IV extranodal diffuse large B-cell lymphoma (DLBCL), a high-risk population underrepresented in clinical trials.

Methods : This retrospective study included consecutive adult patients with newly diagnosed DLBCL and stage IV extranodal disease treated with POLA-R-CHP at the Hematology Clinic, General Anticancer Hospital of Piraeus "Metaxa" (December 2023–August 2025). Inclusion criteria were histologically confirmed DLBCL (GCB or non-GCB), stage IV by PET/CT or clinical staging, ≥1 extranodal site, and ECOG performance status (PS) ≤2. Demographics, baseline disease characteristics, treatment details, and laboratory findings were recorded. Responses were evaluated by Lugano criteria using PET/CT or CT. Follow-up included relapse rates, survival status, and ongoing remission.

Results : Eight patients were analyzed (median age 77.5 years; range 55–85; 50% male). GCB subtype was present in 50%, non-GCB in 37.5%, and 12.5% unclassified. PS was 0 in 62.5% and 1 in 37.5%. Frequent extranodal sites included colon, lung, thyroid, spleen, kidney, and soft tissue. All patients received POLA-R-CHP as initial therapy. Best overall response was complete remission (CR) in 87.5% (7/8) and stable disease (SD) in 12.5% (1/8). At a median follow-up of 6 months, one patient (12.5%) relapsed; one patient's survival status was unknown; all others remain alive in CR.

Conclusion: POLA-R-CHP achieved high CR rates and promising short-term disease control in elderly, high-risk patients with stage IV extranodal DLBCL, aligning with pivotal trial outcomes. Longer follow-up is needed to assess durability of response and survival benefit in real-world practice.

P6- Transcriptomic profiling of multiple myeloma reveals molecular signatures of relapse and drug-resistance following daratumumab-based therapy

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Objective : Despite advances in treatment, including proteasome inhibitors (PIs), (IMiDs), anti-CD38 monoclonal antibodies (Daratumumab,) and anti-BCMA antibodies (Belantamab), a significant proportion of multiple myeloma (MM) patients eventually relapse and develop drug-resistance. This study aims to perform transcriptomic analysis to elucidate the molecular evolution of MM from diagnosis through post-treatment and relapse stages, gaining deeper insight into resistance mechanisms, enhance patient stratification, and leverage transcriptomic alterations for development of novel therapeutic strategies.

Methods : We performed bulk RNA sequencing on CD138+ bone marrow cells from 108 MM patients; newly diagnosed (ND, n = 27), post-treatment (n = 7), and relapsed (n = 12) following daratumumab therapy. We included samples from patients who received Belantamab (n = 3, relapse), IMiDs (n = 4 post-treatment and n=14 relapse), PIs (n = 3 post-treatment and n = 11 relapse), and combination of PIs with IMiDs (n = 4 post-treatment and n = 23 relapse). Differential gene expression analysis was conducted using DESeq2, comparing all groups to the ND cohort, followed by Gene Ontology (GO) and pathway enrichment analysis. A linear model incorporating the normalized counts of differentially expressed genes (DEGs) and patients' clinical outcome was utilized to generate a predictive gene expression score.

Results : Transcriptomic analysis revealed progressive alterations in gene expression patterns from ND to post-treatment and relapse. Relapse samples exhibited distinct treatment-related transcriptomic profiles. Comparison between the DARA post-treatment cohort and ND revealed a limited number of DEGs (padj < 0.05 and |FoldChange|> 0.5849) primarily involved in the regulation of gene expression and RNA processing, the DARA relapse cohort exhibited a broad set of upregulated genes involved in chromatin regulation (PHF13, CBX6, TIGD3), ER stress (CREB3L4, CHOP), cell survival (NFkB1, DUSP10, NXF1) and cell migration (ITGB7, CPNE3,EPPK1) as well as downregulated genes participating in chemokine signaling (CCL8, CCL18), immune regulation (TIMD4,C1QA,FCRL1), apoptosis (TNFSF10, XAF1, CARD8) and tumor progression (MZF1,GMPR,RGS13). Gene Set Enrichment (GSEA) and GO analysis highlighted dysregulation of pathways related to tumor necrosis, regulation of cytokine production and interferon/IL-1 signaling pathways. Interaction network analysis revealed a central axis of genes such as ERBB2, NFkb1, RRAD, PHF13, TIGD3 and NAD2 connecting chromatin remodeling, transcription regulation and cell survival processes. Comparative analysis across all post-treatment and relapse cohorts revealed a unique gene expression signature of 20 genes related to DARA- treatment. All relapse samples shared an expression pattern of one upregulated (ITGB7) and three downregulated genes (HBG1, CCL18, NID2) leading to a relapse-associated gene signature. The generation of a predictive expression score identified relapse-related expression patterns in patients treated with daratumumab based on the normalized counts of genes such as LIPA, LILRB5, FCRL1, TIMD4 and ARC which were significantly correlated (Pearson's r: 0.89788, 0.84462, 0.82422, 0.8063 and 0.7500; p < 0.05, respectively) with depth of treatment response.

Conclusion: Our study demonstrated that RNA-seq profiling across MM disease stages can uncover key transcriptomic shifts associated with daratumumab resistance and relapse. The derived gene expression score and expression motifs in relapse cohorts, may serve as valuable biomarkers for predicting treatment response and disease progression.

P7- "CNS involvement in systemic Hodgkin lymphoma :A rare case of Hodgkin Lymphoma initially presenting with dura mater infiltration."

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Objective : Hodgkin Lymphoma (HL) is a B-cell neoplasm that rarely (0.02-0.7%) presents with central nervous system (CNS) extranodal manifestation. Presenting sites of CNS involvement most commonly involve brain parenchyma (64%); dura and leptomeninges (19%); corpus callosum (3%); and pituitary gland (3%) . Based on, site of involvement initial neurological presentation can differ: cranial nerve palsies (55%), headaches (36%), and paresis (33%) . The most common concurrent areas of disease when the CNS is involved are lymph nodes, bone marrow, and lungs.

Methods : Case report → 20 year old female with no past medical history presented with headaches and purpuric rash located at the lower extremities starting a month before. → The patient was initially consulted by an ophtalmologist who performed opthalmoscopy which revealed bilater papilledema. →Brain MRI: multiple solid tumors of the the dura mater. -->Reactive subcutaneous thickening above the location of the dura involvement. →Brain CT scan: Right sphenoid sinus infiltration →Chest CT scan : solid mass at the anterior mediastinum (lymph nodes and thymus residue) Abdomen CT scan: lymph node infiltration on the upper abdomen, mesenterium, liver, spleen, skeletal axis Palpable peripheral lymph nodes (cervical, jugular, axillary, parotid, retroauricular) Lymph node biopsy (retroauricular) : Morhological and immunohistological findings compatible with Classical Hodgkin lymphoma nodular sclerosis type (NSCHL). (CD30 +, CD15+, LCA-, CD20-,CD3-) PET scan : lymphadenopathy of the cervix (SUVmax 11,1), thorax (SUVmax 13,2), abdomen(SUVmax 8,7 ΔE), liver (SUVmax 4,3), skeletal axis (SUVmax 11,4). Multiple hypermetabolic foci of the skull and dura mater (SUVmax 7,2) as well as left temporal muscle inflitration (SUVmax 10,0). (HL IVA) Patient received therapy with 6 x BrECADD (BRENTUXIMAB VEDOTIN, ETOPOSIDE, ADRIAMYCINE, CYCLOPHOSPHAMIDE, DACARBAZINE) (last treatment 7/8/25) INTERIM PET/CT and Brain MRI : CMR.

Results :

Conclusion: CNS involvement can present as a primary manifestation or dissemination of systemic disease, however, CNS HL without any systemic involvement is extremely rare. CNS involvement of HL that occurs at relapse has been reported to have poorer prognosis, in contrast to CNS HL that presents at diagnosis . Three forms of dissemination to the CNS have been described and include hematogenous spread from nodal sites, direct extension via the skull or dura, and meningeal metastasis. The predominant histological subtype is reported to be nodular sclerosis in patients with CNS HL, followed by mixed cellularity and lymphocyte predominant. No risk factors for development of CNS HL have been recognized, however, concurrent EBV infection or immunosuppression have been suggested as predisposing factors.

P8- Efficacy and safety of recombinant adjuvanted zoster vaccine in patients with monoclonal gammopathies: A prospective study

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Objective : Patients with multiple myeloma (MM) are prone to infections due to immunosuppression, whereas they show impaired serological responses to vaccination. Prophylactic valacyclovir is administered to prevent varicella-zoster virus (VZV) infections. The two dose, recombinant, adjuvanted herpes zoster vaccine (RZV) is approved for immunocompromised patients, but data in patients with MM are limited. In this study, we aimed to assess the efficacy of immunological response to RZV in patients with monoclonal gammopathies.

Methods : We conducted a prospective study to evaluate the immunogenicity of RZV in patients with MM, smoldering MM (sMM), Waldenström's macroglobulinemia (WM), and monoclonal gammopathy of undetermined significance (MGUS). VZV–specific IgG antibodies were measured using Human VZV IgG ELISA kits (OriGene) at three time points: before 1st vaccination, one month (before 2nd vaccination) and three months after the first dose. Antibody levels were expressed as index values and were categorized as: negative (<0.9), borderline (0.9–1.1), positive (>1.1), and high-positive (>2.0). Serological response was defined as seroconversion from negative or borderline, to positive, whereas boosting of humoral response as a ≥2-fold increase in IgG index values among patients with positive IgG levels.

Results : 89 patients were included; 68 with MM, 12 with sMM/MGUS and 9 with WM; median age was 71 years and 61.8% were males. 42 patients had a prior VZV infection, complicated by neuralgia in 20, keratitis in 3 and encephalitis in 1, which were resolved at the time of vaccination. Patients with MM/WM (n=77) were under treatment with monoclonal antibodies (43.8%), bispecific antibodies (4.5%), small molecule inhibitors (12.4%) including Bruton's tyrosine kinase inhibitors, bcl-2 inhibitors and exportin 1 inhibitors, proteasome inhibitors and/or immunomodulatory drugs (25.8%). 41.6% were newly diagnosed, 29.9% were on maintenance, while 28.6% in relapse. Responses at the time of vaccination, were VGPR or better in 65 patients, MR in 1 and SD in 5. 73 symptomatic patients were receiving VZV prophylaxis with valacyclovir, while 4 received no prophylaxis due to intolerance. Before vaccination, IgG indices were negative in 47.2%, borderline in 11.2% and positive in 41.6%. Among patients with prior VZV infection, 69.1% were positive at baseline. Out of 52 negative or borderline patients, seroconversion was achieved in 98.1%, while among 37 IgG-positive patients at baseline, boosting was observed in 59.5% after both doses. Boosting rates seemed to be associated with treatment type ($p<0.001$) and ongoing treatment ($p=0.010$). Adverse events due to vaccination included fever, localized pain and redness. Following vaccination, 5 patients developed breakthrough VZV infection; 1 with MGUS/sMM, 4 with MM/WM; 2 had seroconverted after vaccination and 3 had positive IgG antibodies after prior infection; 2 of the latter had boosted levels after vaccination. All cases presented with localized pain and rash without systemic symptoms, and were managed with oral acyclovir.

Conclusion: Two doses of RZV seem to induce humoral responses in the vast majority of patients with monoclonal gammopathies, with minimal toxicity. A minority of patients on treatment with breakthrough VZV infections had adequate IgG antibody levels, no systemic symptoms, and were successfully managed with oral antiviral therapy.

P9- Evaluation of Droxinostat in Combination with Chemotherapy and Immunotherapy in Triple-Negative Breast Cancer

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Objective : Triple-negative breast cancer (TNBC) accounts for approximately 15–20% of all breast cancers and is associated with poor prognosis, high recurrence rates, and limited therapeutic options. Unlike hormone receptor-positive or HER2-amplified breast cancers, TNBC lacks defined molecular targets, making chemotherapy and immune checkpoint blockade the main therapeutic strategies. However, resistance to chemotherapy and the limited efficacy of immune checkpoint inhibitors remain major challenges. The aim of this study was to investigate the anticancer potential of the histone deacetylase (HDAC) inhibitor Droxinostat, alone and in combination with standard therapeutic agents such as Nab-paclitaxel and Atezolizumab, in TNBC cell line models.

Methods : We utilized MDA-MB-231 (TNBC) and MCF-10A (normal breast epithelial) cell lines to evaluate cytotoxic and immunomodulatory effects. Cells were treated with Droxinostat, Nab-paclitaxel, and Atezolizumab as single agents and in combination. Cell viability was determined using the XTT assay. Flow cytometry was performed to analyze apoptosis (Annexin V/PI) and cell cycle distribution. qRT-PCR was conducted to examine gene expression levels of caspase-3, caspase-8, Bcl-2, and PD-L1. Experiments were performed in triplicate to ensure reproducibility.

Results : Droxinostat treatment resulted in a marked reduction in TNBC cell viability while sparing normal epithelial cells, highlighting its tumor-selective activity. It significantly increased apoptotic and necroptotic cell death, associated with upregulation of caspase-3 and caspase-8 expression. In addition, Droxinostat induced cell cycle arrest at the S and M phases, contributing to its antiproliferative effect. When combined with Nab-paclitaxel, Droxinostat demonstrated moderate synergism, enhancing apoptotic cell death beyond single-agent treatment. Atezolizumab alone did not alter PD-L1 expression in the TNBC model, suggesting limited direct effects at the cellular level. However, its combination with Droxinostat enhanced overall apoptosis and reduced tumor cell survival more effectively than either agent alone.

Conclusion: This study demonstrates that Droxinostat exerts potent tumor-suppressive effects in TNBC cells by promoting apoptosis, necroptosis, and cell cycle arrest, while exerting limited cytotoxicity in normal breast epithelial cells. Droxinostat also augmented the therapeutic efficacy of Nab-paclitaxel and enhanced the apoptotic response in combination with Atezolizumab. These findings suggest that epigenetic modulators such as Droxinostat represent promising combinatorial agents to optimize chemotherapeutic and immunotherapeutic strategies in TNBC. Nevertheless, confirmation of these results in more complex models that better reflect tumor–immune interactions will be important to establish their broader translational relevance. This study was supported by the Turkish Health Institutes Presidency (TÜSEB) under project number 24430.

P10- An Unusual Presentation in JAK2-Positive Myelofibrosis: Penile Extramedullary Plasmacytoma

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Objective : Plasmacytoma is a rare plasma cell neoplasm characterized by the clonal proliferation of plasma cells producing monoclonal immunoglobulins. Clinically, it appears in two forms: osseous plasmacytoma and extramedullary plasmacytoma (EMP). Solitary EMPs constitute around 3% of plasma cell malignancies, usually occurring in the head and neck, especially in the mucosa of the upper respiratory and gastrointestinal tracts. Other sites are very rare, including the gastrointestinal tract, urinary bladder, central nervous system, thyroid, breast, testis, parotid gland, lymph nodes, and skin. Diagnosis generally occurs between ages 55–60, with male predominance. Here, we report an unusual case of solitary EMP localized to the penis. An 83-year-old male with JAK2-positive myelofibrosis under ruxolitinib treatment presented to dermatology with genital pain and painful penile skin lesions. Physical examination revealed erythematous, purulent, raised lesions accompanied by perineal pain and dysuria. Systemic examination and vital signs were unremarkable. Laboratory studies showed normal liver and renal function, electrolytes within reference, and no hypercalcemia. CRP was 25 mg/L and ESR 65 mm/h. Blood counts revealed leukocytosis (14.19 × 10^3/µL), neutrophilia (10.45 × 10^3/µL), anemia (Hb: 9.1 g/dL), and thrombocytosis (490 × 10^3/µL). LDH was elevated (662 U/L). Free light chain analysis showed kappa: 50.5 mg/L, lambda: 29.8 mg/L, ratio: 1.695. Immunoglobulins were IgG: 12.68 g/L, IgA: 1.2 g/L, and IgM: <0.25 g/L. Immunofixation electrophoresis did not reveal monoclonal gammopathy. Urine analysis was normal, and skeletal imaging showed no lytic lesions. Histopathology demonstrated epithelial ulceration, neutrophilic and eosinophilic infiltrates, and sheets of plasma cells. Immunohistochemistry showed strong CD138 positivity with monoclonal staining for kappa light chain and IgG. Microbiological and mycological cultures were negative. The diagnosis of penile EMP was established. The patient received external beam radiotherapy (30 Gy in 12 fractions). Post-treatment, there was marked pain reduction, regression of penile swelling, resolution of dysuria, and disappearance of discharge.

Methods :

Results :

Conclusion: EMP is an uncommon plasma cell neoplasm, usually involving the head and neck. Penile plasmacytoma is exceedingly rare and may mimic infections, inflammatory lesions, or other malignancies. In our case, laboratory and imaging findings were non-specific, and diagnosis relied on histopathology and immunohistochemistry confirming monoclonal plasma cell proliferation. Radiotherapy is the treatment of choice for localized EMPs, with high response rates. Our patient showed rapid and significant improvement after 30 Gy radiotherapy. This case underlines the importance of considering plasmacytoma in unusual anatomical locations and highlights the role of radiotherapy as an effective treatment.

P11- Leishmaniasis as a companion and mimic of multiple myeloma in two patients

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Objective : Multiple myeloma, a clonal plasma cell disorder, commonly affects adults above 50 years age and accounts for about 10% of all hematological malignancies. Anemia, bone pains, renal failure are the most common symptoms at presentation. Though extra-medullary extra-osseous disease such as hepatosplenomegaly is well known in the course of the disease, clinician must be aware for conditions such as opportunistic infections under immunsupressive period.

Methods : Leishmaniasis accompanied by multiple myeloma was detected in one patient, while leishmaniasis mimicking multiple myeloma was detected in another patient.

Results : One patient was examined with a preliminary diagnosis of multiple myeloma and was placed under observation after amastigotes were observed in the aspiration following appropriate antibiotic therapy. The other patient was examined due to unexplained ascites in the abdomen after being diagnosed with multiple myeloma, and leishmaniasis was detected. After both multiple myeloma and leishmaniasis were treated in the second patient, autologous stem cell transplantation was performed.

Conclusion: Multiple myeloma (MM) patients are considered severely immune-compromised and at high risk of opportunistic infections, independently of the therapeutic approach and the response status. Leishmaniasis seems to behave as such an opportunistic infection; the incubation time of initial infection ranges between 2 and 6 months, while a recurrence of latent infection is possible It is a rare vector-borne infection that is caused by more than 20 species of an intramacrophage protozoon, which is transmitted to humans by more than 30 different species of phlebotomus sandflies (or less often by contaminated blood products transfusion) Although leishmaniasis is an endemic disease with 90% of cases occurring in tropical and subtropical areas (e.g. Brazil, India but also South and Mediterranean Europe) more recently with the growth of international travel, its frequency is also increasing in western countries. This predominantly occurs in immune-compromised patients, including patients with HIV-acquired immunodeficiency patients who underwent an organ or hematopoietic stem cell transplantation and patients with lymphoproliferative disorders.

P12- Can We Rely Only In Immunophenotyping In Cll? A Case Report

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Objective : Objective: International guidelines allow diagnosing Chronic Lymphocytic Leukemia (CLL) solely by peripheral blood immunophenotype, without routine bone marrow biopsy in typical cases. However, rare “CLL-like” mantle cell lymphoma cases—expressing CD23 or CD200 and lacking SOX11—can immunophenotypically mimic CLL, risking misdiagnosis and inappropriate management. This is critical, given the divergent biology, prognosis, and therapeutic strategies for the two diseases, since Mantle Cell Lymphoma (MCL) has a median survival typically between ~2 and 9 years and often requires early intervention, while CLL frequently follows an indolent “watch and wait” course. The absence of morphologic/molecular confirmation may result in inappropriate management.

Methods : Method: We describe a case of a 58-year-old male patient who presented with marked hepatosplenomegaly and lymphocytosis, whose immunophenotype was initially consistent with CLL, while the bone marrow biopsy revealed mantle cell lymphoma.

Results : Results/Case report: A 58-year-old male presented with progressive splenomegaly (27 cm), hepatomegaly (17 cm) identified on abdominal MRI, lymphocytosis (WBC 6,220/μL, lymphocytes 4,790/μL), and mild thrombocytopenia. His medical history included Arterial hypertension, Type 2 diabetes mellitus, Chronic obstructive pulmonary disease (COPD), with recent smoking cessation. A CT scan of the chest, abdomen, and pelvis demonstrated hepatomegaly, dilation of the splenoportal axis, splenomegaly with mass effect and displacement of the left kidney, and multiple enlarged lymph nodes forming a pathological mass (lymph node block) in the region of the splenoportal axis and abdominal aorta. His initial diagnostic work-up included bone marrow biopsy, bone marrow karyotyping and immunophenotyping as well as FISH. Immunophenotyping supported a diagnosis of CLL (CLL score: 4), leading to treatment initiation with 2 cycles of Obinutuzumab. However, bone marrow biopsy revealed 50% infiltration by MCL (CD5+, CD23+, CD200+, cyclin D1+, SOX11−) and FISH confirmed t(11;14)(q13;q32)/CCND1 rearrangement. A Ki-67 index of 10–15% and the absence of blastoid morphology supported a leukemic non-nodal MCL subtype. IGHV mutation testing did not reveal a mutated status, consistent with an unmutated IGHV profile and TP53 negativity, which further contributed to diagnostic ambiguity. In this case, the MCL lacked typical high Ki-67, SOX11 negativity, and expressed CD23, all contributing to its initial misclassification as CLL. These immunophenotypic overlaps have been documented in leukemic non-nodal MCL, a clinically indolent but genetically distinct variant. The patient received five cycles of alternating R-CHOP and R-DHAP, followed by autologous stem cell transplantation, achieving sustained complete remission for 13 months until now, confirmed by two bone marrow biopsies.

Conclusion: Conclusion: Differentiating between CLL and MCL can be challenging, especially when relying solely on the peripheral blood immunophenotype. These two entities share significant overlap but also have critical differences, both prognostically and therapeutically. SOX11-negative MCL with CD23 or CD200 expression may mimic CLL, potentially leading to inappropriate treatment. Therefore, in atypical immunophenotypes or borderline cases, bone marrow biopsy combined with FISH or IHC for t(11;14)/CCND1 or cyclin D1/SOX11 expression is essential at least before initiation of treatment to ensure correct diagnosis, treatment strategy and prognostic implications.

P13- "Expression of the RPA, MPG and ERCC8 mRNA levels of the NER, BER, and TC-NER repair pathways in myelodysplastic neoplasms"

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Objective : INTRODUCTION: Myelodysplastic neoplasms are a heterogeneous group of acquired clonal disorders involving the primitive hematopoietic cell. They are characterized by dysplasia in one or more myeloid lineages, ineffective hematopoiesis, cytopenias, and an increased risk of progression to acute myeloid leukemia. There is evidence that deficiency of DNA repair mechanisms can lead to the accumulation of genetic damage and MDS development. PURPOSE: In this study, we examined the expression of the RPA, MPG and ERCC8 mRNA levels in MDS patients, which play a critical role in NER (Nucleotide Excision Repair), BER (Base Excision Repair), and TC-NER (Transcription Coupled-Nucleotide Excision Repair) repair pathways, respectively.

Methods : PATIENTS AND METHODS: Bone marrow samples were collected from 46 MDS patients at diagnosis. They were classified according to WHO 2016 (MDS-SLD: 18, MDS SLD+RA: 2, MDS-MLD: 9, EB1: 1, EB2: 11, CMML1: 4, RCMD: 1) and evaluated using the IPSS-R prognostic system (Very low risk: 9 patients, Low risk: 21 patients, Intermediate risk: 5 patients, High risk: 8 patients, Very high risk: 3 patients). The mRNA levels of the repair genes RPA, MPG, and ERCC8 were studied using real-time RT-PCR using actin gene as reference gene. Statistical analysis was performed by SPSS 27.0 program.

Results : RESULTS: The mRNA levels of ERCC8, MPG and RPA genes were significantly higher in MDS patients with intermediate/high/very high risk according to IPSS-R classification, compared to lower risk MDS (p=0.034, p=0.05 and p=0.062, respectively). The expression of the ERCC8 mRNA was statistically significantly associated with progression to AML [ERCC8 OR: 1.19 (1.02–1.38) p=0.026, while MPG OR: 0.20 (0.00-296.87) p=0.663, RPA OR: 0.97 (0.74–1.25) p=0.763]. The expression of the studied repair genes was not related to gender, age at diagnosis, WHO classification, karyotype, other hematological parameters and overall survival.

Conclusion: CONCLUSIONS: The present study in MDS patients of the RPA, MPG, and ERCC8 mRNA gene expression, participating in NER, BER, TC-NER repair pathways, respectively, revealed that increased expression of these genes was detected in higher risk MDS patients. Furthermore, ERCC8 gene expression was associated with an increased risk of progression to AML. The above findings suggest that further investigation of DNA repair mechanisms in MDS can provide important information for the prognosis and development of new targeted therapies that will improve the survival of MDS patients.

P14- Prevalence, Etiology, and Treatment Patterns of Deep Vein Thrombosis in Unusual Sites: Single-center experience

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Objective : Venous thromboembolism (VTE), including deep vein thrombosis (DVT) and pulmonary embolism (PE), constitutes a significant contributor to cardiovascular mortality and morbidity worldwide. Although DVT mainly concerns the lower extremities, it can also be observed in uncommon anatomical sites (DVTUS). In this retrospective, monocenter study, we aimed to identify the prevalence, clinical manifestations, etiology, and treatment patterns of DVTUS patients.

Methods : We retrospectively enrolled consecutive adult patients referred to the thrombosis–hemostasis clinic of the 2nd Propedeutic Department of Internal Medicine of Hippocration Hospital between 2009 and 2025 who were diagnosed with VTE. Medical records of the patients were reviewed, and data were collected. DVTUS was considered any DVT event occurring in an anatomical site other than the lower extremities and pulmonary circulation. The following variables were collected and analyzed: site of thrombosis, age, gender, clinical manifestations, medical and family history, laboratory tests, including thrombophilia testing, treatment of DVTUS, and data from follow-up visits.

Results : From 391 patients referred to our center for VTE, 43 (11%) were diagnosed with DVTUS: 17 (39.5%) with upper extremities deep vein thrombosis, 10 (23.2%) with abdominal vein thrombosis (AVT), 6 (14%) with cerebral vein thrombosis, 6 (14%) with inferior vena cava thrombosis (IVCT), and 4 (9.3%) with superior ophthalmic vein thrombosis. One of the patients with IVCT had co-existing thrombosis in the renal vein. The mean age (+standard deviation) of the patients was 52.9 (+17.7) years, and 25 (58.1%) were females. Regarding patients with AVT, 8 (80%) had thrombosis in the portal vein, 3 (30%) in the splenic veins, and 1 (10%) in the inferior mesenteric vein, with all of them presenting with abdominal pain, and 3 (30%) with upper gastrointestinal bleeding. In 2 (4.7%) patients, DVTUS was attributed to either trauma or surgery, in 3 (7%) to liver cirrhosis, in 3 (7%) to an underlying malignancy diagnosis (mantle cell lymphoma, breast, and renal carcinomas), 2 (4.7%) were treated with oral contraceptive pills, while 1 (2.3%) was diagnosed with paroxysmal nocturnal hemoglobinuria. Concerning the etiology of unprovoked DVTUS, 11 (25.6%) were diagnosed with antiphospholipid syndrome (APS) (1 patient with secondary APS due to systemic lupus erythematosus), 5 (11.6%) with G20210 A prothrombin mutation, 14 (32.5%) with FV Leiden mutations (heterozygous: 12, homozygous: 2), 1 (2.3%) with antithrombin deficiency, and 1 (2.3%) with protein C deficiency. At discharge, sixteen patients (37.2%) were treated with vitamin K antagonists, 11 (25.6%) with direct oral anticoagulants, and 16 (37.2%) with low molecular weight heparin. Data from follow-up visits were available for 19 patients, and one of the APS patients presented with PE.

Conclusion: DVTUS constitutes a relatively rare cause of DVT, but early diagnosis and identification are crucial. Additionally, congenital thrombophilia and APS have been found in our real-world study as significant causes of DVTUS. Multicenter collaboration is essential to better understand the epidemiology, manifestations, and underlying causes of this clinical entity.

P15- Preliminary Docking and Cytotoxicity Findings of Novel Synthetic Cannabinoids in Chronic Myeloid Leukemia Models

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Objective : Chronic myeloid leukemia (CML) is driven by the BCR::ABL1 fusion oncoprotein, which induces continuous proliferation and resistance to apoptosis. Although imatinib, a first-line tyrosine kinase inhibitor (TKI), has improved survival, resistance and relapse remain significant challenges. Synthetic cannabinoids, with their receptor-mediated effects and potential oncogenic pathway modulation, have emerged as promising candidates for alternative therapies. This study presents preliminary results on the therapeutic potential of newly designed synthetic cannabinoids, focusing on molecular docking and in vitro cytotoxicity analyses in CML models.

Methods : Docking analysis was performed to assess the binding affinities of four synthetic cannabinoids (4F-MDMB-BUTICA, ADB-BUTINACA, MDMB-4en-PINACA, and JWH-018) toward CB1/CB2 receptors and the BCR::ABL1 kinase domain, with imatinib used as a reference ligand. Cytotoxicity assays were carried out using NCIBL2171 (healthy lymphocytes) and K562 (CML) cells. Cells were exposed to increasing concentrations of the compounds, and viability was measured at different time points (24h, 48h, 72h) using the XTT assay.

Results : Docking analysis revealed that all tested cannabinoids showed binding affinity toward CB1/CB2 receptors and the BCR::ABL1 kinase domain. Among them, JWH-018 (–10 kcal/mol) exhibited the strongest affinity to the kinase pocket, while ADB-BUTINACA, 4F-MDMB-BUTICA, and MDMB-4en-PINACA demonstrated moderate binding affinities (ΔG values –6.9, –6.8, and –7.2 kcal/mol, respectively). Cytotoxicity assays revealed distinct profiles across the compounds. JWH-018 (IC_{50} = 3.78 µM in K562) showed potency comparable to imatinib, while ADB-BUTINACA (IC_{50} = 11.82 µM in K562) also inhibited proliferation effectively, and neither compound induced toxicity in healthy NCIBL2171 lymphocytes. 4F-MDMB-BUTICA (IC_{50} = 6.5 µM in K562) suppressed proliferation at low concentrations, with toxicity in NCIBL2171 cells only observed at approximately sevenfold higher doses, indicating a favorable selectivity window. In contrast, MDMB-4en-PINACA (IC_{50} = 6.5 µM in both K562 and NCIBL2171) induced cytotoxicity in both healthy and leukemic cells, suggesting limited therapeutic potential.

Conclusion: Our preliminary findings indicate a complementary relationship between docking predictions and cytotoxicity outcomes. JWH-018, which exhibited the strongest binding affinity to the BCR::ABL1 kinase domain, also showed the most potent antiproliferative effect in K562 cells (IC_{50} = 3.78 µM) with no toxicity in healthy lymphocytes, highlighting its potential as a leading candidate. Similarly, ADB-BUTINACA demonstrated moderate binding affinity and consistent selective cytotoxicity (IC_{50} = 11.82 µM in K562, non-toxic in NCIBL2171), supporting its promise as a therapeutic agent. 4F-MDMB-BUTICA, despite only moderate docking scores, displayed effective inhibition of leukemic proliferation (IC_{50} = 6.5 µM in K562) and a favorable selectivity window, suggesting additional mechanisms beyond predicted binding may contribute to its activity. In contrast, MDMB-4en-PINACA showed moderate docking affinity but lacked therapeutic selectivity, exhibiting similar cytotoxicity in both healthy and leukemic cells. Together, these results suggest that JWH-018, ADB-BUTINACA, and 4F-MDMB-BUTICA merit further investigation as potential candidates for overcoming therapeutic resistance in CML, while docking–cytotoxicity correlations provide a rational basis for prioritizing compounds with both strong predicted interactions and selective biological activity.

P16- Genetically complex MDS/MPN-NOS with early AML transformation: Challenges for diagnosis, risk stratification, and management

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Objective : Myelodysplastic/myeloproliferative neoplasms not otherwise specified (MDS/MPN-NOS) are MDS/MPNs that do not meet the criteria for other specific entities (WHO 2022). They are characterized by cytopenias typical of MDS, less than 20% blasts in both the bone marrow and peripheral blood, evidence of myeloid hyperplasia, and the presence of clonal cytogenetic lesions or somatic mutations in myeloid lineage genes. MDS/MPN-NOS accounts for less than 5% of all myeloid malignancies, and the progression rate to acute myelogenous leukemia (AML) is 15-40% in 3-5 years. We present a patient with MDS/MPN-NOS rapidly progressing to AML, to describe the diagnostic workup, disease evolution, and management of this heterogeneous entity.

Methods : A 67-year-old man was referred for evaluation of extreme thrombocytosis (2,340×109/L) with concurrent normocytic anemia. The patient presented with pain in the right upper quadrant, along with lower extremity edema and dyspnea. He was a smoker with a medical history significant for arterial hypertension, atrial fibrillation, chronic kidney disease, chronic obstructive pulmonary disease, and sleep apnea syndrome. His medications included rivaroxaban, metoprolol, betaxolol, and lercanidipine.

Results : Initial laboratory findings revealed normochromic, normocytic anemia (hemoglobin: 10.9 g/dL), extreme thrombocytosis (platelet count: 2,340.0x109L), and a normal white blood cell count (8.3x109/L). The patient tested negative for all three MPN driver mutations. Imaging studies demonstrated hepatomegaly (17.9 cm), splenomegaly (16.0 cm), and a small pleural effusion without evidence of thrombosis in major vessels. Therapy involved cytoreduction with hydroxyurea, followed by low-dose anagrelide. A bone marrow biopsy revealed moderate megakaryocytic hyperplasia, dyshematopoietic changes in the erythroid lineage, and increased blast percentage (10% CD34+) without fibrosis. Cytogenetic analysis showed a normal male karyotype (46,XY), while NGS identified seven somatic mutations across six myeloid lineage genes: ASXL1, FLT3, NRAS, RUNX1, TET2, and SRSF2 (VAF>15%). The patient was diagnosed with a low-risk (per the IPSS-R) MDS/MPN-NOS. While under anticoagulation, he suffered a spontaneous, subcutaneous hematoma on his right hip, prompting the diagnosis of acquired von Willebrand syndrome (von Willebrand factor activity markedly reduced, vWF:AC: 29%, normal values 65-140%). At 2.5 months post-diagnosis, due to worsening anemia, transformation to AML was documented (blast count increasing to 26% and FLT3-TKD mutation detection). After referral for allogeneic transplantation, he received sequential treatments including azacitidine/venetoclax and azacitidine/gilteritinib combinations, resulting in severe hematological toxicity and multiple infectious complications, necessitating a four-month hospitalization. Due to progressive disease, he received, after approval, CPX-351 to attempt remission before transplantation; however, the patient developed Gram-negative septic shock, leading to intubation and subsequent death shortly thereafter.

Conclusion: This case highlights the diagnostic complexity and potential aggressive clinical course of MDS/MPN-NOS, as well as the fact that IPSS-R is not suitable for risk-stratification of this complex entity. The presence of multiple high-risk mutations underscores the heterogeneity, potential aggressiveness, and poor prognosis of this malignancy. Allogeneic stem cell transplantation is recommended for eligible patients; hypomethylating agents and targeted therapies may serve as bridges. This case also emphasizes the importance of comprehensive molecular profiling and early transplant referral in MDS/MPN-NOS with high-risk mutations, as well as the need for universal, specific risk-stratification models.

P17- Chronic myeloid leukaemia with extreme thrombocytosis

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Objective : Myeloproliferative neoplasms (MPNs) are relatively rare haematological malignancies. Chronic myeloid leukaemia (CML) is the commonest MPN and characterised by extreme leucocytosis, myelocyte bulge, basophilia, eosinophilia in peripheral blood and presence of underlying Philadelphia chromosome as a cytogenetic abnormality or BCR-ABL transcript as a molecular abnormality. Some patients of CML can have mild to moderate thrombocytosis.We report a case of chronic myeloid leukaemia (CML) with extreme thrombocytosis.

Methods : A 60-year-old man, a chronic smoker, presented with a history of upper abdominal discomfort, loss of appetite, significant lethargy and progressive weight loss of 1 year duration. There was no history of any other bleeding manifestation, swellings, or night sweats. The patient did not have any bleeding during his hospital stay. He was not a diabetic or hypertensive. On examination, the patient's blood pressure was 130/90 mm Hg and his pulse rate was regular, at 80/min. He was afebrile with respiratory rate of 18/min. General examination revealed normal. Abdominal examination revealed moderate hepatosplenomegaly. Haemogram: Hb: 9.5 g/dL, total WCC: 56 500/mm3, differential count: Neu 80 Lym 3, platelet count: 1 700 000/mm3. Peripheral smear: Normocytic normochromic RBC, marked neutrophilic leucocytosis with severe thrombocytosis. Bone marrow aspiration: Hypercellular marrow with basophilia, eosinophilia and mild increase in megakaryocyte number. Bone marrow biopsy: Hypercellular marrow with features suggestive of MPN. RT-PCR for BCR-ABL: Positive for p210 transcript. JAK-2 V617F mutation: Negative

Results : In view of the patient's markedly raised platelet count and leucocytosis, the possibility of MPN was considered. ET and CML were the most likely possibilities. Reactive causes were very less likely due to extreme thrombocytosis and associated leucocytosis.This case was ultimately diagnosed as CML and thrombocytosis was considered as an early manifestation of the chronic phase of CML. In our case, transcript analyses revealed a p210 transcript, confirmed by RT-PCR, and the patients responded extremely well to imatinib therapy.

Conclusion: CML is a MPN characterised by the presence of Philadelphia chromosome t(9:22). CML is characterised by marked leucocytosis, myelocyte bulge, basophilia, eosinophilia and normal to mild thrombocytosis in peripheral blood. A fair number of patients may have mild thrombocytosis. Sometimes thrombocythaemia may be the only peripheral blood finding in the chronic phase of CML.Variant BCR-ABL transcripts may be associated with extreme thrombocytosis in CML, which can have a different response to drugs in comparison to typical CML.All patients with thrombocythaemia should be investigated for BCR-ABL translocation.

P18- From Anemia and Thrombocytopenia During Pregnancy to the Diagnosis of Systemic Mastocytosis and Myelofibrosis: A Difficult Case

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Objective : Hematological complications during pregnancy can lead to significant maternal and fetal morbidity. While anemia and thrombocytopenia are most commonly associated with benign causes such as iron deficiency anemia and immune thrombocytopenic purpura (ITP), in rare cases they may represent the first manifestation of underlying clonal hematopoietic disorders. This case report presents a patient who developed anemia and thrombocytopenia during pregnancy, was initially diagnosed with ITP, and later found to have systemic mastocytosis and myelofibrosis.

Methods : A 43-year-old woman presented to the hematology clinic in 2019, during her third pregnancy, with severe anemia and thrombocytopenia. Her past medical history revealed thalassemia trait, while her family history was notable for a sibling with aplastic anemia and a mother who had died of leukemia. The patient was initially managed with corticosteroids under the presumptive diagnosis of ITP. During pregnancy and delivery, she required a total of 11 units of red blood cell transfusions due to severe anemia. Later in the same year, progressive cytopenias and hepatosplenomegaly were detected, and bone marrow aspiration biopsy established the diagnosis of systemic mastocytosis. With increasing transfusion requirements, further evaluation in September 2022 led to the additional diagnosis of myelofibrosis. The patient was treated with midostaurin for systemic mastocytosis and subsequently underwent allogeneic hematopoietic stem cell transplantation for myelofibrosis.

Results : Despite initial treatment for ITP, the patient showed no significant improvement in hematological parameters. Further investigations revealed the coexistence of systemic mastocytosis and myelofibrosis. The management included corticosteroids, midostaurin, and eventually allogeneic stem cell transplantation, which were crucial in the clinical course of the patient.

Conclusion: In cases of anemia and thrombocytopenia during pregnancy, the differential diagnosis should remain broad. Particularly in atypical or treatment-resistant cases, clonal hematopoietic disorders must be considered. This case highlights that hematological abnormalities initially attributed to ITP may, over time, evolve into rare but clinically significant hematologic neoplasms such as systemic mastocytosis and myelofibrosis.

P19- Drug-Related Sweet's Syndrome: an underestimated adverse reaction to hypomethylating agents

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Objective : Although drug-induced Sweet's syndrome is rare, emerging evidence links hypomethylating agents to its development in patients with myelodysplastic syndromes (MDS) and acute myelogenous leukemia (AML). Despite this, no evidence-based treatment guidelines exist, underscoring the need for heightened clinical awareness and prompt management.

Methods : We report three cases of Sweet's syndrome in patients receiving azacytidine or decitabine for MDS or AML.

Results : Case 1: A 73-year-old woman with high-risk post-cytotoxic therapy AML developed a painful erythematous rash and fever five days after initiating IV decitabine and venetoclax. Skin biopsy confirmed Sweet's syndrome. Initial treatment with prednisolone 40 mg was escalated to IV methylprednisolone 500 mg due to worsening symptoms, resulting in clinical improvement. The rash resolved with tapering, and rechallenge with decitabine was well tolerated. Currently, she has completed four cycles of treatment and remain in complete remission. Case 2: A 68-year-old woman with high-risk MDS/AML, already on oral prednisone 20 mg for Sjogren's disease, developed a non-painful erythematous rash without fever five days after starting SC azacytidine and venetoclax. Biopsy revealed histiocytoid Sweet's syndrome. Due to neutropenia and infection risk, systemic steroids were discontinued and topical corticosteroids led to complete resolution. After rechallenge and completion of two cycles, she had refractory disease and is currently receiving salvage chemotherapy. Case 3: A 62-year-old woman receiving SC azacytidine and venetoclax for high-risk MDS/AML developed fever and painful plaques five days into treatment. Empirical prednisolone 30 mg was initiated based on clinical suspicion. Biopsy confirmed Sweet's syndrome. Lesions improved, but recurred upon rechallenge with azacytidine, resolving spontaneously without corticosteroids. To date, she has received seven cycles of treatment, and her disease remains in complete remission. None of the patients had known drug allergies, recent vaccinations, or exposure to other known causative agents such as filgrastim or sulfamethoxazole-trimethoprim. Infectious workups were negative.

Conclusion: Diagnostic criteria for drug-induced Sweet's syndrome are well established, yet treatment guidelines remain absent. Our cases highlight the importance of early corticosteroid initiation upon clinical suspicion, even in neutropenic patients. Discontinuation of the causative agent may not be necessary, and rechallenge is often feasible. While azacytidine is more frequently implicated, we report a rare case associated with IV decitabine. The temporal association between symptom onset and drug initiation supports a causal link, though genetic predispositions may also play a role and warrant further investigation.

P20- Pnh And Aplastic Anemia (Aa-Pnh) During Pregnancy

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Objective : Paroxysmal Nocturnal Hemoglobinuria (PNH) is a rare hemopoietic stem cell disorder, characterised by chronic complement - mediated hemolysis, bone marrow failure and venous thromboembolism (VTE). PNH management during pregnancy is challenging, since high maternal and fetal mortality are reported (8-20% and 4-9% respectively), mostly due to VTE and historically pregnancy is discouraged in women with PNH. We present a case of successful pregnancy outcome in a woman with PNH and Aplastic anemia.

Methods : A 25 year-old primigravida presented at 10th week of gestation with pancytopenia Hb 4.3g/dl, WBCs 2.500 /µl (PMNs100/µL), PLTs 14.000/µl, RETICS 1,9% , LDH 850 U/L The diagnostic workup with bone marrow aspiration, flow cytometry immunophenotyping and bone marrow biopsy set the diagnosis of aplastic anemia with a considerable PNH clone (on 3 lineages : granulocytes 6,9%, monocytes 68%, erythrocytes 51%). Karyotype and NGS for myeloid disorders and inherited bone marrow failure syndromes were both normal. Investigation for chromosomal fragments was negative for Fanconi anemia.

Results : After setting the diagnosis of PNH-AA the patient was vaccinated against meningitis, and started therapy with Eculizumab (600mg/w x 4w followed by 900mg every 2 weeks). As a result, improvement of hemolysis (LDH normalisation) was observed, but cytopenias did not resolve. Subsequently, cyclosporine A (CsA) was added without objective response (notably, throughout pregnancy therapeutic trough levels of the drug were never achieved, despite gradual dose increase). The mean levels of the hematological parameters during pregnancy were Hb 7,6 g/dl (4-11), WBCs 2000/µl (100-5000), PMNs 600/µl (100-3800), PLTs 14000/µl (2000-55000). The patient did not experience infections, severe hemorrhagic or thrombotic complications, despite omitting thromboprophylaxis due to low PLT counts. Fetal development was normal. Delivery by C/S was scheduled at 34 weeks of gestation, with RBC and PLT transfusion support and a healthy premature male BW 2375g was born and was admitted in the neonate ICU for 3 weeks. Two weeks following delivery the patient received immunosuppressive therapy for severe aplastic anemia (rATG 3.5mg/kg/d x5d, Prednisone 1mg/kg/d X14d, CsA 3mg/kg/d, Eltrombopag 150mg/d) while continuing eculizumab infusions. HLA typing of the patient and her brothers was performed, with no matching found and she was referred to BMT Unit for an unrelated matched donor search. Additionally, the patient started iron chelation therapy with defarasirox. Three months after immunosuppressive therapy a trend towards erythropoietic recovery is observed, with slight improvement of Hb levels and decrease in transfusion needs. The woman is in good condition, with no infections, VTE or hemorrhagic events. The four month old baby has normal development.

Conclusion: Primigravida suffering from PNH-AA was successfully managed throughout pregnancy with supportive care (RBC and PLT transfusions), C5 inhibitor and CsA. Pregnancy outcome was optimal, without severe complications for both mother and the fetus. This life-threatening disease may successfully be treated in special centers with multidisciplinary teams of hematologists, obstetricians, anesthesiologists and neonatologists with expertise in high-risk pregnancy.

P21- Obinutuzumab-Induced Acute Thrombocytopenia

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Objective : Obinutuzumab-induced acute thrombocytopenia (OIAT) is a rare but potentially life-threatening complication. Here, we present a case of a 54-year-old woman with refractory diffuse large B-cell lymphoma (DLBCL) who developed acute thrombocytopenia following obinutuzumab infusion. The patient was successfully managed with intravenous immunoglobulin (IVIG), corticosteroids, and thrombopoietin receptor agonist (TPO-RA) therapy. This case highlights the importance of early recognition and close monitoring of OIAT, as well as the challenges in establishing standardized treatment strategies.

Methods : A 54-year-old woman with a past medical history of hypertension, asthma, and thyroidectomy presented with abdominal pain and unintentional weight loss exceeding 10% over a 2–3 month period. Imaging revealed multiple intra-abdominal lymphadenopathies and multiple hypodense lesions in the spleen and liver. Lymph node biopsies were non-diagnostic; however, splenic biopsy confirmed DLBCL, Stage IVB with a Ki-67 proliferation index of 98% and positivity for c-myc, BCL-2, and BCL-6. The patient received 3 cycles of R-CHOP, but restaging demonstrated refractory disease. Salvage therapy with 2 cycles of R-ICE was administered, again with no significant response. The treatment plan was updated to obinutuzumab-IGEV followed by autologous stem cell transplantation. Prior to initiating therapy, her platelet count was 212,000/mm³. On Day 1, she received 100 mg of obinutuzumab. By Day 2, platelet count had precipitously dropped to 16,000/mm³. Peripheral blood smear confirmed thrombocytopenia without schistocytes. Bone marrow evaluation revealed no disease infiltration. Coagulation parameters were normal, and no evidence of thrombosis was observed. The thrombocytopenia was therefore attributed to OIAT. The patient was started on methylprednisolone (1 mg/kg/day) and eltrombopag (75 mg/day). Despite treatment, platelet counts remained low, and on Day 6, she developed epistaxis requiring endoscopic intervention and was refractory to platelet transfusions. IVIG was subsequently administered at 2 g/kg over 2 days. By the second day of IVIG treatment, platelet counts had increased to 136,000/mm³. Corticosteroids were gradually tapered, and eltrombopag therapy was continued due to platelet counts remaining below 100,000/mm³. The patient remained stable without recurrent bleeding or further critical thrombocytopenia.

Results : OIAT is an uncommon but clinically significant adverse event. Its pathophysiology is not fully understood, but immune-mediated mechanisms are thought to play a central role. In previously reported cases, platelet transfusions are typically ineffective, likely due to immune destruction of transfused platelets. Corticosteroids and IVIG are commonly employed to block the immune-mediated mechanism, while thrombopoietin receptor agonists (TPO-RAs) may provide additional benefit in cases of persistent or severe thrombocytopenia.Most cases reported in the literature describe the use of combination therapy, making it difficult to delineate the specific contribution of each intervention. Nevertheless, early recognition and close monitoring—especially within the first 24 hours of obinutuzumab administration—are crucial to preventing severe bleeding complications.

Conclusion: OIAT is a rare but potentially life-threatening complication of obinutuzumab therapy. Management strategies may include corticosteroids, IVIG, and TPO-RAs, while platelet transfusions are generally ineffective. Optimal therapy remains undefined due to the limited number of reported cases. Clinicians should maintain a high index of suspicion for OIAT and ensure close clinical and laboratory monitoring in the immediate period following obinutuzumab infusion.

P22- Complete response of secondary Acute Myeloid Leukemia (M7) evolving from Myelofibrosis after Selinexor–Azacitidine–Venetoclax induction: a Case Report

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Objective : Selinexor is an oral, selective inhibitor of exportin 1 (XPO1), which can suppress myelofibrosis (MF) relevant JAK/STAT and non JAK/STAT signaling pathways and has shown potential synergy with ruxolitinib in preclinical and early clinical models. (Metzger et al. A novel application of XPO1 inhibition for the treatment of myelofibrosis.) In acute myeloid leukemia (AML), combinations of selinexor with azacitidine and venetoclax (the SAV regimen) have demonstrated encouraging tolerability and high response rates in both newly diagnosed and relapsed/refractory (R/R) settings. In transplanted-unfit elderly AML patients, SAV showed CR/CRi rates up to 80% and overall response rates up to 90%. (Li Yang et al. Selinexor in Combination with Venetoclax and Azacitidine for Newly Diagnosed (ND) Unfit Acute Myeloid Leukemia (AML): A Multicenter, Open-Label Prospective Study.)

Methods :

Results : Case presentation A young male patient was diagnosed with polycythaemia vera (PV) in 2005 after presenting with headaches and ocular redness; diagnosis was confirmed by positive JAK2 V617F mutation and erythroid hyperplasia on bone marrow biopsy (BMB). Initial treatment included low-dose aspirin and phlebotomies. In September 2017, he developed trilinear hematologic elevation, elevated LDH, and splenomegaly. BMB showed grade 1 to focal grade 2 fibrosis. Peginterferon alfa was initiated. In January 2020, the patient exhibited progressive thrombocytopenia, declining hematocrit, and further splenomegaly (17.4 cm). Repeat BMB demonstrated progression to grade 2–3 fibrosis with 1% myeloid blasts, confirming transformation to overt myelofibrosis (IPSS score: 0). He began ruxolitinib, which induced clinical and hematologic improvement; no significant adverse events were noted. A search for sibling donors was conducted, and the patient was referred for allogeneic hematopoietic stem-cell transplantation (allo HSCT), which however was declined by him. By May 2025, peripheral blood blasts were 8%. Bone marrow aspiration and flow cytometry showed 13% $CD34^+$, $CD13^+$, $CD117^+$, HLA DR^+, $CD33^-$ cells, and BMB revealed 95% megakaryoblast infiltration, indicating secondary AML (M7) and advanced fibrosis (grade3). FLT3 and NPM1 PCRs were negative; Cytogenetics revealed an abnormal male karyotype (47,XY,+der(?)t(?;1)(?;q12)[25]). NGS showed high-risk mutations—JAK2 (64.9%), ASXL1 (31%), DNMT3A (43.7%), EZH2 (13.8%), and SF3B1 (5.2%). He initially received azacitidine–venetoclax, but developed further enlargement of the spleen (30cm), fever, hepatic dysfunction, vasculitic rash, and cryptogenic organizing pneumonia. Corticosteroids improved these immune-mediated manifestations. Thereafter, he received selinexor in combination with azacitidine and venetoclax, achieving complete remission after one cycle; spleen size decreased by over 75% and liver enzymes normalized. He is now undergoing his third cycle and is planned to proceed to allo HSCT.

Conclusion: This case underscores the potential effectiveness of the selinexor–azacitidine–venetoclax (SAV) regimen in treating secondary AML (M7) evolving from myelofibrosis, characterized by complete clearance of bone marrow blasts and rapid splenic regression. To our knowledge, this is the first report of such a response in this specific disease context.

P23- Efficacy Of Eltrombopag In Patients Undergoing Allogeneic Hematopoietic Stem Cell Transplantation

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Objective : Allogeneic hematopoietic stem cell transplantation (allo-HSCT) is a curative treatment option for many hematological diseases. Engraftment failure may occur after allo-HSCT. Platelet engraftment is defined as a platelet count above 20×10^9/L for three consecutive days without transfusion support. Failure of platelet engraftment is a common complication after allo-HSCT, and eltrombopag is used in its treatment. In this study, we present our experience with 14 patients who received eltrombopag due to thrombocytopenia following allo-HSCT, focusing on treatment response within the first 28 days.

Methods : Data from 14 patients who underwent allo-HSCT between 2022 and 2025 at the Bone Marrow Transplantation Unit of Ege University Hospital were retrospectively analyzed. Patients without platelet engraftment and who received at least 3×10^6/kg CD34(+) stem cells were included. Eltrombopag was initiated at 25–50 mg/day and increased up to 150 mg/day. Platelet counts at baseline, week 1, week 2, week 3, and week 4 were compared. Partial response was defined as a platelet count ≥20,000/mm³ for at least 7 consecutive days, and complete response as a platelet count ≥50,000/mm³ for at least 7 consecutive days.

Results : Of the patients, 64.3% were female and 35.7% male. Diagnoses included ALL (35.7%), aplastic anemia (28.6%), AML (14.3%), MDS (7.1%), myelofibrosis (7.1%), and Hodgkin lymphoma (7.1%). Donor type was unrelated in 92.9% and related in 7.1%. First transplantation was performed in 78.6%, while 21.4% underwent a second transplant. Overall, 64.3% of patients died; median overall survival after allo-HSCT was 7.0 ± 2.6 months, and 1-year OS was 39.7 ± 13.6%. One patient died within 21 days after eltrombopag initiation and was excluded from response assessment, which was evaluated in 13 patients. Within the first 28 days, no response was observed in 69.2% (n=9), partial response in 23.1% (n=3), and complete response in 7.7% (n=1). During long-term follow-up (3–12 months), two additional patients achieved complete response. At 12 months, 46.2% (n=6) of patients showed partial or complete response, while 53.8% (n=7) remained unresponsive.

Conclusion: In our study, the short-term response rate to eltrombopag in patients without platelet engraftment after allo-HSCT was low. However, some patients achieved delayed responses during long-term follow-up. These findings suggest that although eltrombopag shows limited efficacy in the early post-transplant period, it may provide long-term benefit in selected patients. Larger prospective studies are needed to confirm these results.

P24- Vinblastine-Induced Syndrome of Inappropriate Antidiuretic Hormone Secretion: A Case Report

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Objective : Vinca alkaloids, especially vincristine, have been implicated in the development of hyponatremia, most commonly through the induction of inappropriate antidiuretic hormone (ADH) secretion. Proposed mechanisms involve interference with hypothalamic microtubules responsible for ADH regulation and abnormal activation of peripheral volume receptors. While salt-wasting nephropathy has not been described with these agents, experimental studies suggest that high-dose exposure may lead to autophagic vacuole formation of lysosomal origin in renal tubular cells. We report a case of a woman with Hodgkin lymphoma who experienced transient hyponatremia secondary to vinblastine-associated syndrome of inappropriate antidiuretic hormone secretion (SIADH).

Methods : A 66-year-old woman was diagnosed with mixed-cellular-type Hodgkin lymphoma following excisional biopsy. She received one standard cycle of brentuximab vedotin combined with AVD chemotherapy (adriamycin, vinblastine, dacarbazine). Six days post-treatment, she presented acutely with fatigue and dizziness. On assessment, she appeared clinically euvolemic, alert, and cooperative, with all vital signs within normal range. Laboratory results revealed severe hyponatremia (serum sodium 119 mmol/L) with a previously normal sodium level just one week earlier, while renal function remained unremarkable. She was admitted for urgent management of the life-threatening electrolyte disturbance. A diagnostic work-up, including serum and urine osmolality measurements along with urine sodium concentration; supported a diagnosis of SIADH. Intravenous administration of isotonic saline was initiated, raising her sodium to 126 mmol/L. Fluid intake was subsequently restricted to 1 L per day, resulting in serum sodium normalization to 134 mmol/L after three days. At discharge, SIADH was considered the most probable cause, based on her hypotonic hyponatremia, concentrated urine despite euvolemia, and favorable response to fluid restriction. No evidence of sodium loss via the kidneys or gastrointestinal tract was found, nor were there any concurrent medications known to induce hyponatremia. This clinical picture strongly suggested an association between vinblastine-containing chemotherapy and the development of SIADH.

Results : Hyponatremia is a well-recognized complication in oncology patients and may arise as a side effect of anticancer therapy. Among chemotherapeutic agents, vincristine, vinblastine, cisplatin, and cyclophosphamide are most frequently associated with this electrolyte disturbance. The underlying mechanisms remain incompletely understood. SIADH has been particularly associated with vinca alkaloids, cisplatin, and possibly alkylating agents.

Conclusion: In this case, standard-dose vinblastine induced a significant but reversible decline in serum sodium levels. Clinical data strongly pointed to SIADH, likely triggered by vinblastine's neurotoxic influence on the hypothalamic–pituitary – axis as the principal mechanism. Although tubular dysfunction causing sodium loss cannot be entirely excluded, the patient's prompt response to fluid restriction further supports the SIADH diagnosis. This case reinforces the need for regular monitoring of serum sodium during vinblastine therapy to promptly identify hyponatremia and prevent severe neurological outcomes—an approach emphasized in prior reports of SIADH during treatment with vinca alkaloids.

P25- Central Nervous System Graft-versus-Host Disease After Allogeneic Hematopoietic Stem Cell Transplantation: Two Rare Case Reports

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Objective : Graft-versus-host disease (GvHD) is a major complication of allogeneic hematopoietic stem cell transplantation (allo-HSCT), typically involving the skin, gastrointestinal tract, and liver. Central nervous system (CNS) involvement is extremely rare and poses significant diagnostic challenges. Differential diagnoses include infections, drug toxicity, metabolic disturbances, and disease relapse. Here, we present two rare cases of CNS GvHD following allo-HSCT, highlighting the diagnostic work-up and therapeutic strategies.

Methods :

Results : Case 1: A 30-year-old woman diagnosed with TP53-mutated AML in 2023 underwent induction therapy with a 7+3 regimen and two cycles of HiDAC consolidation, followed by allo-HSCT from an HLA-matched sibling donor in March 2024 with a cyclophosphamide/busulfan conditioning regimen. Neutrophil engraftment occurred on day 17, and chimerism on day 28 was 100%. Mycophenolate mofetil was maintained for prophylaxis due to subtherapeutic cyclosporine levels. One month post-transplant, non-adherence to prophylaxis preceded pruritic maculopapular rashes and neurological symptoms, including lower extremity numbness and dysarthria. Neurological exam revealed lower limb weakness. MRI showed bilateral trigeminal nerve enhancement, while CSF analysis demonstrated pleocytosis (40/µL) and elevated protein (2.3 g/L) without oligoclonal bands or malignant cells. Infectious and metabolic evaluations were negative, and abdominal ultrasonography was normal. Biopsies confirmed cutaneous and hepatic GvHD. The patient experienced a generalized seizure; EEG was unremarkable. CNS GvHD was suspected, and she was treated with pulse methylprednisolone, followed by tapering steroids and ruxolitinib (10 mg BID). Repeat MRI showed regression of trigeminal nerve enhancement, and neurological deficits partially resolved. Case 2: A 59-year-old woman with primary myelofibrosis (diagnosed in 2019) underwent allo-HSCT from a matched sibling donor in September 2024 using a fludarabine/treosulfan regimen. Cyclosporine was discontinued after six months. She developed grade 1 cutaneous GvHD managed with topical steroids but later presented with progressive dysarthria, gait disturbance, weakness, and diarrhea. Initial prednisolone therapy (0.5 mg/kg) was escalated after neurological deterioration. Neurological evaluation revealed no alternative etiology; colonoscopy confirmed gastrointestinal GvHD. Combined CNS and GI GvHD were diagnosed. Treatment with methylprednisolone (40 mg daily) and ruxolitinib (10 mg BID) led to full resolution of diarrhea and marked neurological improvement.

Conclusion: CNS GvHD is a rare but serious allo-HSCT complication. Its pathogenesis may involve cerebrovascular injury, demyelination, or immune-mediated encephalitis. Presentations are heterogeneous, including seizures, paresis, dysarthria, cognitive changes, and coma, often mimicking infections or relapse. Diagnostic confirmation relies on compatible MRI findings, CSF abnormalities, exclusion of alternative causes, and response to immunosuppression.Both patients in this report demonstrated MRI abnormalities and elevated CSF protein, with rapid clinical improvement following corticosteroids and adjunctive ruxolitinib. These cases underscore the importance of considering CNS GvHD in allo-HSCT recipients presenting with unexplained neurological symptoms. Early recognition, thorough exclusion of differential diagnoses, and timely initiation of immunosuppressive therapy are critical to improving outcomes. Further case documentation is needed to better define diagnostic criteria and optimize management strategies for this rare and potentially life-threatening complication.

P26- A Rare Case of Atypical Renal Chronic GVHD Mimicking Systemic Lupus Erythematosus with Thrombotic Microangiopathy

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Objective : Graft-versus-host disease (GVHD) after allogeneic hematopoietic stem cell transplantation (allo-HCT) can cause both classical and atypical organ involvement. Atypical renal GVHD is a rare complication that typically manifests with nephrotic-range proteinuria, hypertension, and hematuria. However, it can sometimes mimic conditions such as systemic lupus erythematosus (SLE) due to similar clinical and histological features.

Methods : In this case we present a patient who developed atypical renal GVHD presenting with pancytopenia and thrombotic microangiopathy (TMA) which initially mimicked SLE.

Results : A 40-year-old male patient, who underwent allogeneic stem cell transplantation from his HLA-matched brother due to B-ALL, presented with complaints of fatigue and hemoptysis. Laboratory findings revealed pancytopenia, schistocytes on peripheral smear, and elevated LDH levels. The patient was admitted to the intensive care unit with suspicion of TMA or disease relapse. He was treated with plasma exchange and methylprednisolone, but nephrotic-range proteinuria and increased creatinine developed during follow-up. Eculizumab therapy was initiated with a diagnosis of atypical HUS, but kidney biopsy showed findings consistent with thrombotic microangiopathy and tubular basement membrane staining. Atypical HUS was excluded and cyclophosphamide therapy was started due to a suspected diagnosis of SLE. After three months of cyclophosphamide therapy, the patient showed reduction in proteinuria, and creatinine levels normalized. The final diagnosis was atypical GVHD and ruxolitinib treatment was reinitiated.

Conclusion: Atypical renal chronic GVHD affects a small but significant minority—approximately 2–3% of all transplant recipients, and nearly 14% of those with atypical cGVHD manifestations. Though rare, awareness is crucial: missed or delayed diagnosis may lead to worsening renal function and elevated non-relapse mortality, as these atypical presentations often carry unique prognostic implications. This case highlights how atypical renal GVHD can mimic SLE and TMA with similar clinical and histological features. It emphasizes the importance of accurate differential diagnosis and the critical role of early treatment in preserving kidney function.

P27- Vulvar Involvement in Adult Langerhans Cell Histiocytosis: A Four-Case Series Emphasizing Diagnostic and Therapeutic Challenges

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Objective : Langerhans Cell Histiocytosis (LCH) is a rare clonal disorder originating from antigen-presenting dendritic cells of the immune system. It presents with a broad clinical spectrum, ranging from isolated single-organ involvement to severe multisystemic disease. Vulvar LCH has been reported in only a limited number of cases and often manifests as recurrent, treatment-resistant, or atypical lesions, which may lead to delayed diagnosis.

Methods : In this case series, we present four adult cases of vulvar LCH, evaluating their diagnostic process, association with systemic involvement, and treatment response in the context of this rare localization.

Results : All patients were diagnosed based on biopsy and immunohistochemical staining (CD1a, Langerin, S100). Vulvar LCH was the initial manifestation in three cases, while one patient had a history of pulmonary LCH. Systemic involvement included the lungs, bones, lymph nodes, and hypothalamic-pituitary axis. Treatments included vinblastine-prednisone, methotrexate + cytarabine, cladribine, and lenalidomide-dexamethasone, with local radiotherapy applied in selected cases. Clinical responses were generally favorable, although complications such as neuropathy, and pulmonary embolism were observed.

Conclusion: Vulvar LCH is a rare entity that requires early recognition to avoid misdiagnosis and unnecessary treatments. A multidisciplinary and individualized approach is essential, particularly in cases with systemic spread or endocrine dysfunction. Biopsy with immunohistochemistry remains the cornerstone of diagnosis.

P28- Synchronous Occurrence of Chronic Myeloid Leukemia and Chronic Lymphocytic Leukemia: An Uncommon Case

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Objective : Chronic myeloid leukemia (CML) is a myeloproliferative neoplasm defined by the presence of the BCR-ABL1 fusion gene, accounting for roughly 15 % of all leukemia cases and affecting approximately 1–2 individuals per 100,000 annually. In contrast, chronic lymphocytic leukemia (CLL) represents the most prevalent adult leukemia and is characterized by a clonal expansion of mature B lymphocytes. The simultaneous manifestation of CML and CLL in a single patient is exceedingly rare, with literature documenting only a few dozen such cases. Proposed pathophysiologic explanations for this co-occurrence include: 1) transformation at the level of a shared pluripotent hematopoietic stem cell, 2) development of an independent second malignant clone, and 3) iatrogenic clonal evolution following treatment of one malignancy.

Methods : In April 2024, a 55-year-old woman was referred to our hematology outpatient clinic due to leukocytosis. Complete blood count revealed hemoglobin 13.1 g/dL, white blood cell count 23.8×10^9/L (neutrophils 13.5×10^9/L, lymphocytes 5.7×10^9/L, monocytes 3.05×10^9/L, eosinophils 0.8×10^9/L, basophils 0.7×10^9/L), and platelet count 464×10^9/L. The patient was asymptomatic at presentation. Initial peripheral blood FISH analysis demonstrated a BCR/ABL gene pattern suggestive of a 9q34 locus deletion accompanied by t(9;22)(q34;q11) in approximately 7% of cells. Flow cytometry showed immunophenotypic findings consistent with chronic lymphocytic leukemia (CLL): CD19+ 100%, CD23+ 93%, CD5+ 85%. Peripheral blood smear also supported the presence of both CLL and CML. Subsequent bone marrow aspiration FISH analysis revealed an 83% BCR/ABL1-positive cell population with t(9;22)(q34;q11.2) translocation. Bone marrow biopsy confirmed the simultaneous diagnosis of CML and CLL (Figure 1). The patient was initiated on imatinib therapy and remains under close hematologic follow-up.

Results :

Conclusion: The coexistence of CML and CLL in a single patient is exceedingly rare. In the case we present, it is unclear which malignancy developed first; the patient initially presented with leukocytosis, and both CML and CLL were detected simultaneously. This unusual scenario underscores the importance of considering the possibility of synchronous hematologic malignancies at the time of diagnosis. The development of CML and CLL in a single patient may be facilitated by interactions between lymphoid and myeloid lineages. Clinically, the presence of both diseases complicates diagnostic evaluation and treatment planning. While CML typically responds well to tyrosine kinase inhibitor therapy, CLL often follows an indolent course and does not require immediate treatment in most cases. In our patient, CML was treated with imatinib, whereas CLL was kept under observation. Management becomes particularly challenging if both malignancies progress concurrently, emphasizing the need for a personalized, multidisciplinary approach.

P29- Investigation Of The Role Of Cd34+Mps In Modulating The Antioxidant And The Inflammatory Profiles Of The Promyelocytic Leukemia Cell Line Hl60

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Objective : The study of the role of CD34+ microparticles (MPs) in the acute promyelotic leukemia cell line HL-60 on the oxidative stress levels and inflammation. Umbilical cord blood (UCB) is a rich source of stem cell derived MPs (CD34+MPs) under apoptosis or activation condition of CD34+ cells. A potent activator of the immune cells is LPS, an endotoxin found in Gram-negative bacterias' outer membrane, which activates cells to produce proinflammatory cytokines through the TLR4/MD2/CD14 complex. One of these cytokines is IL-8, which attracts neutrophiles to the inflammatory regions. Concurrently oxidative stress arises as a result of an imbalance between prooxidant-antioxidant, despite the presence of cellular antioxidant enzymes such as superoxide dismutase (SOD), Glutathione Reductase (GR) and Glutathione-S-transferase (GST). Malondialdehyde (MDA) is a toxic product of lipid peroxidation, and its concentration can be used as a biomarker for oxidative stress.

Methods : The CD34+ MPs were derived from UCB plasma using immunomagnetic separation. Four different groups were studied after 24 hours, an HL-60 control group, HL-60 co-incubated with LPS (from E.coli), HL-60 co-incubated with CD34+ MPs and lastly HL-60 co-incubated with both LPS and MPs. The LPS effect was studied on the gene expression of the receptor TLR4 and IL-8 by RT-PCR. Superoxide dismutase, glutathione-S-transferase, glutathione reductase activity and the malondialdehyde concentration produced by lipid peroxidation were measured by spectrophotometry only in the Control and the HL-60/CD34+ samples after 24h and 48h.

Results : The antioxidant activity in the presence of CD34+ MPs was statistically significant increased. More specifically SOD activity was increased in CD34+MPs compared to the control in HL60 after 24hrs and 48hrs incubation (48,9% and 38,4% respectively), GR activity was increased (38,3% and 32,2% respectively) compared to control. GST activity was also increased (49,8% and 32,9% respectively) and lastly MDA concentration was higher in the samples co-incubated with CD34+ MPs after 24hrs and 48hrs incubation (52,1% and 59,8% respectively) meaning lipid peroxidation was increased in those samples. Although the TLR4 gene expression did not differ significantly among the four groups according to RT-PCR, IL-8 gene expression, statistically was significantly increased in the sample co-incubated with LPS without showing differences in other groups.

Conclusion: The presence of CD34+ MPs activates the antioxidant reponse in the promyelocytic leukemia cell line HL-60. LPS enhances cellular inflammation as evidenced by increased gene expression of the proinflammatory cytokine IL-8. More data are expected from the ongoing project experiments.

P30- Gynecomastia: An Unreported Side Effect of Talquetamab in Primary Refractory Multiple Myeloma

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Objective : The advent of bispecific antibody therapies such as Talquetamab has transformed outcomes for patients with relapsed or refractory multiple myeloma, achieving unprecedented response rates. However, unlike previous immunotherapies, Talquetamab—targeting GPRC5D—has exhibited a distinct and notably higher incidence of dermatologic, nail, and connective tissue adverse effects. Clinical reports indicate that up to 70% of patients experience skin-related toxicities (e.g., rashes, exfoliation), approximately 60% develop dysgeusia, while nail complications such as onychomadesis and palmoplantar keratoderma are increasingly recognized. These on-target effects likely stem from GPRC5D expression on keratin-rich tissues such as skin, nails, and hair follicles, while off-target toxicities will become better defined over time through both clinical trial data and real-world evidence. In this poster, we present an unreported case of unilateral gynecomastia following Talquetamab therapy, expanding the emerging profile of GPRC5D-related toxicities.

Methods : Case: A 58-year-old man was diagnosed with high-risk multiple myeloma. Despite treatment with VRd and then Dara-Kd, the disease progressed. He subsequently underwent autologous stem cell transplantation with high-dose melphalan following a partial response of greater than 50%. A very good partial response was achieved, and dual bispecific antibody therapy with talquetamab and teclistamab was initiated thereafter. At the 7-month follow-up, physical examination revealed unilateral, painful gynecomastia of the left breast. PET-CT showed no abnormal FDG uptake, while contrast-enhanced breast MRI and ultrasound confirmed the diagnosis of gynecomastia. Hormonal evaluation was within normal limits. One month later, the breast pain resolved spontaneously, and the gynecomastia regressed without any specific intervention. This adverse event was also observed in two additional patients receiving talquetamab and was attributed to the drug.

Results :

Conclusion: Talquetamab and teclistamab are bispecific antibodies that redirect T cells against plasma cells through distinct targets. While their safety profiles share common features such as cytopenias, infections, and mucocutaneous toxicities, differences in target expression result in unique adverse events. Gynecomastia, as observed in our patient, has not been previously reported in association with these agents. Interestingly, similar findings were noted in two additional patients receiving talquetamab, suggesting a possible drug-related effect. Given the absence of published data, the mechanism underlying this event remains speculative. It is likely related to off-target binding, as GPRC5D is expressed in nonhematopoietic tissues. As clinical experience with bispecific antibodies expands, rare off-target toxicities are expected to become more clearly defined, highlighting the importance of vigilant reporting and pharmacovigilance.

P31- Balancing Efficacy and Toxicity: A Case of Eltrombopag-Related Cutaneous Adverse Effects in Refractory ITP

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Objective : Immune thrombocytopenia (ITP) is an acquired autoimmune disorder characterized by isolated thrombocytopenia and an increased risk of bleeding. Eltrombopag, an oral non-peptide thrombopoietin receptor (TPO-R) agonist, is an established treatment option for patients with ITP who are refractory to corticosteroids, immunoglobulins, or rituximab. While generally considered safe and well tolerated, eltrombopag has been associated with both hematologic and non-hematologic toxicities. Among these, cutaneous adverse events are uncommon but clinically relevant. Here, we report a refractory ITP patient who developed progressive cutaneous eruptions shortly after initiation of eltrombopag therapy.

Methods : A 67-year-old male was diagnosed with immune thrombocytopenia (ITP) in March 2025. The patient was refractory to corticosteroid therapy and exhibited only a transient response to intravenous immunoglobulin (IVIG). He experienced repeated episodes of severe thrombocytopenia ($<10\times10^9$/L) accompanied by mucosal bleeding, requiring five emergency hospitalizations for IVIG administration. Rituximab failed to achieve a durable response, and the patient declined splenectomy. Consequently, eltrombopag was initiated. Baseline evaluation revealed normal liver and spleen size, and whole-body computed tomography showed no pathological findings. Serologic tests for hepatitis B virus (HBV), hepatitis C virus (HCV), and human immunodeficiency virus (HIV) were negative. Serum protein electrophoresis excluded monoclonal gammopathy. Helicobacter pylori testing was negative. Autoimmune screening, including ANA, ANCA, complement (C3–C4) levels, and antiphospholipid antibodies, was also negative. Given the patient's refractory disease course, a bone marrow aspiration and biopsy were performed, which demonstrated normocellular marrow without evidence of infiltration. On day 7 of eltrombopag therapy, the patient developed progressive dermatological manifestations characterized by widespread erythematous, scaly, and desquamative eruptions involving the face and palms, accompanied by xerosis and fissuring. Despite these cutaneous adverse events, eltrombopag was continued, as the patient demonstrated a favorable hematologic response with platelet counts rising to 100×10^9/L. Symptomatic dermatologic management, including topical emollients and anti-inflammatory treatment, was instituted with partial improvement of skin lesions.

Results : This case underscores the therapeutic challenges in managing refractory ITP and highlights the occurrence of significant cutaneous adverse reactions during eltrombopag therapy. The decision to continue treatment despite dermatologic toxicity was guided by the patient's sustained hematologic response, emphasizing the importance of individualized management strategies in complex and treatment-resistant cases of ITP.

Conclusion: Glucocorticoids remain the first-line treatment for immune thrombocytopenia (ITP); however, treatment-resistant cases are not uncommon. Thrombopoietin receptor (TPO-R) agonists, such as eltrombopag, have emerged as preferred second-line therapies, often replacing splenectomy in clinical practice. Although eltrombopag demonstrates favorable efficacy and safety, rare cutaneous adverse effects have been reported. To our knowledge, skin exfoliation associated with eltrombopag has not been comprehensively documented in the literature. Importantly, these reactions may occur independently of dose, as illustrated in our case. Clinicians should therefore remain vigilant for dermatological toxicity, even at moderate doses, and tailor management strategies according to the severity of cutaneous involvement.

P32- Hairy Cell Leukemia Treated with Cladribine Followed by Rituximab: A 5-Year Single Center Experience

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Objective : Hairy cell leukemia (HCL) is a rare, indolent B-cell lymphoproliferative disorder characterized by the accumulation of malignant lymphocytes with a distinctive “hairy” morphology in the peripheral blood, bone marrow, and splenic red pulp. Although cladribine induces high rates of complete remission, relapses continue to occur, necessitating long-term follow-up and alternative treatment strategies. The HCL variant (HCLv), accounting for approximately 10% of cases, is typically resistant to purine analog monotherapy. In this setting, sequential treatment with cladribine followed by rituximab has demonstrated improved efficacy and durable responses. Here, we present our five-year institutional experience with this therapeutic approach in previously untreated HCL patients.

Methods : We conducted a retrospective review using patient medical records. Cladribine (0.14 mg/kg) was administered subcutaneously daily for 5 days, followed about a month later by rituximab (375 mg/m2 IV) weekly for 8 weeks. Response assessments followed standard criteria. Unconfirmed complete remission (CRu) was identified by normalized blood counts and the absence of enlarged organs, without the need for a bone marrow biopsy. Bone marrow evaluations were carried out 12 months post-treatment.

Results : welve patients, with a median age of 51 years (range: 23–69 years), achieved an initial CRu. Of these, eleven were male and one was female. The median follow-up period was 23 months. One patient was diagnosed with HCLv, showing a lack of CD25, CD123, and Annexin A1 expression. All patients tested negative for Hepatitis C, Hepatitis B, and HIV. No patients required hospitalization due to neutropenic fever during treatment. At the time of diagnosis, splenomegaly was present in all patients except one, and all presented with at least one form of cytopenia. The mean hemoglobin level at diagnosis was 9.55 g/dL (median: 9.35; range: 4.6–15.2), while the mean platelet count was 64,916/mm³ (median: 52,500; range: 23,000–163,000). Mean spleen size was 205 mm (median: 175; range: 133–300). At six months post-treatment, the mean hemoglobin level had increased to 15.18 g/dL (median: 15.35; range: 13.3–17.2). Patient baseline characteristics are summarized in Table 1. All patients completed therapy, and all achieved complete response.

Conclusion: The cladribine–rituximab sequence was administered safely and effectively to all HCL patients in our cohort, without major complications. This strategy demonstrated robust and durable responses in HCL and may be particularly advantageous for patients with HCLv, who are generally less responsive to nucleoside analogs alone.

P33- Real world data of incidence and risk factors for infections in newly diagnosed myeloma patients treated with modern induction regimens

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Objective : Infections are a common cause of morbidity and mortality in patients with multiple myeloma (MM). Novel treatments have substantially improved the outcomes of MM patients; however, the risk of infectious complications continues to be significant. We aimed to describe the incidence and risk factors for infections in a modern cohort of newly diagnosed MM (NDMM) treated with modern regimens.

Methods : The analysis included 541 consecutive NDMM patients that started treatment after 1/1/2020, in a single center (Department of Clinical Therapeutics, Greece). Grade (Gr)≥2 infections during the first 12 months of treatment were prospectively recorded in our database. All patients received prophylaxis with valacyclovir and >90% with TMP/SMX, per institutional guidelines. No patient received immunoglobulin supplementation during induction. The level of polyclonal IgG in those with IgG myeloma was derived by extracting the monoclonal protein measured by densitometry from the total IgG. Time-to-infection was calculated from the start of treatment up to 12 months.

Results : The median patients' age was 67 years and 54% were females. IgG MM was reported in 60% of patients, IgA in 22% and light chain only in 17%; 32% had polyclonal IgG level <400 mg/dL; 71% had IgA <70 mg/dL and 82% IgM <40 mg/dL; 89% had immunoparesis in at least one of the polyclonal IgG, IgA or IgM. Induction therapy contained a PI in 77%, lenalidomide in 77%, VRd in 54%, and 41% received anti-CD38 MoAb containing regimen. At least one Gr≥2 infection was recorded in 168 (31%) patients. The cumulative 3-, 6- and 12-month infection rate was 14%, 20% and 29%, respectively, indicating a higher risk early after starting therapy. Most infections were Gr 2; Gr≥3 infections occurred in 56 (10.3%) including Gr 5 in 17 (3.1%) patients. The most common sites were lower (N=57) and upper respiratory tract infections (N=19), urinary tract infections (N=16), COVID-19 (N=45) and bloodstream infections NOS (N=10). In univariate analysis, advanced disease stage [ISS-3 (p<0.001), R2-ISS (p=0.021), R-ISS (p=0.001)], severe renal dysfunction [eGFR<30 ml/min/1.73 m2, (p<0.001)], poor performance status (PS>1, p<0.001), serum albumin<3.5 gr/dl (p=0.009) were associated with significantly higher risk of Gr≥3 infection. In multivariate analysis, eGFR<30 ml/min/1.73 m2 (HR: 2.55, p=0.011) and PS >1 (HR: 4.3, p<0.001) remained the most important prognostic factors associated with Gr ≥3 infection risk. We formulated a score with these 2 factors so that the 3-month cumulative incidence of Gr≥3 infection was 1% vs 10% vs 25%, when none, one or both risk factors were present, respectively. The corresponding 6- and 12- month risk was 2% vs 14% vs 31% and 4% vs 33% vs 36%. This score also classified patients in three different risk groups across all induction regimens and among different age groups

Conclusion: Infections remain a significant risk in NDMM treated with modern regimens. Patient-related factors identify those at significant risk for serious infections but, importantly, more effective modern induction regimens do not significantly increase this risk in the short term. For high-risk patients, preventive strategies and early infection recognition and management are crucial.