HEMATOLOGY, TRANSFUSION AND CELL THERAPY

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Poster Abstracts

PP 01

CD180 EXPRESSİON ON ACUTE MYELOİD LEUKEMİA BLASTS

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Objective: CD180 is a Toll-like receptor expressed primarily in B-cell groups and has been identified as a potential therapeutic target in diseases such as B-cell non-Hodgkin lymphoma. However, the expression profile of CD180 and its clinical significance in patients with Acute Myeloid Leukemia (AML) remain largely uncharacterized. While the only existing study in the literature has reported high CD180 expression in a subset of AML samples, these findings have not been validated by other studies. Therefore, the objective of this study is to determine the presence and level of CD180 expression on leukemic blasts at the time of diagnosis in a cohort of AML patients. **Methodology:** Between November 15, 2024 and December 31, 2024, five patients diagnosed with Acute Myeloid Leukemia at the Ege University Immunology Laboratory were included in this study.Informed consent was obtained from all patients. Peripheral blood or bone marrow samples were collected at the time of diagnosis. Flow cytometry was used to determine the percentage of leukemic blasts and to evaluate the expression of CD180 on these cells. Demographic, clinical, and molecular data obtained from patient records were used for patient follow-up analyses, Türkiye. **Results:** In this study, data from a total of five AML patients, including four newly diagnosed and one with refractory disease, were evaluated. The median age of the cohort was 65 years (range: 20–66), and the patients' blast percentages ranged from 50% to 95%. Initial laboratory findings included a White Blood Cell (WBC) count ranging from 1.45 to 87.92 $\times$ 10^9/L, a platelet count from 25 to 206 $\times$ $10^3/\mu$L, and a hemoglobin (Hb) value from 6.8 to 12.2 g/dL. Flow cytometry analysis revealed that very low-density CD180 expression was present on leukemic blast cells in all five patients examined. According to molecular and cytogenetic data, three patients (ASXL1 mutation and BCR::ABL1 fusion gene) were included in the ELN Adverse Risk Group, while the remaining two patients were included in the ELN Intermediate Risk Group. Based on clinical follow-up results, one patient in the adverse risk group was deceased after 2 months, and another was deceased after 27 months. All patients in the intermediate risk group were alive at the end of an 8-month follow-up period. **Conclusion:** In conclusion, our findings demonstrate the low-density of CD180 expression on leukemic blasts in all five AML patients examined. This observation contradicts the findings of the only study in the literature. Therefore, further studies involving larger patient groups are needed to accurately determine the presence of CD180 on AML blasts.

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PP 02

IMPAIRED COAGULATION AT DIAGNOSIS AND INDUCTION PHASE OF ACUTE LYMPHOBLASTIC LEUKEMIA

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Objective: Disseminated intravascular coagulation (DIC) has been reported in 8-25% of acute lymphoblastic leukemia (ALL). Coagulopathy may accompany leukemia at diagnosis and during the induction phase and negatively impact prognosis. However, recognizing coagulopathy during this period can be challenging due to the accompanying bone marrow failure. Furthermore, distinguishing between asparaginase-associated hypofibrinogenemia and disseminated intravascular coagulation is challenging in clinical practice. It is important to determine which patients are at clinical risk and how they should be managed. **Methodology:** Fifty patients with

ALL followed at our center, diagnosed between 16. August.2019 and 17.June.2025 were retrospectively evaluated. The relationship between the patients' coagulation parameters and clinical data at diagnosis and during the induction period was investigated. **Results:** The median age at diagnosis was 39 (18-79), and the majority of the patients were male (31/19). Nine of the patients had T-ALL, 17 had Ph-positive B-ALL, and 24 had Ph-negative B-ALL. The median follow-up duration was 15.3 (0.2-71.9) months. At the time of diagnosis, mild hypofibrinogenemia (<200 mg/dL) was detected in 8 (17%) and severe hypofibrinogenemia (<100 mg/dL) was detected in 2 (4%) patients. During the induction phase, mild hypofibrinogenemia was detected in 36 (72%) and severe hypofibrinogenemia was detected in 11 (22%) patients. No statistically significant association was found between mild or severe hypofibrinogenemia at diagnosis and induction phase with age, gender, and ALL subtype. Fibrinogen level at diagnosis was lower in patients who developed mild hypofibrinogenemia at induction phase compared to those who did not (median 278 vs. 453) (p=0.004). In patients who received an asparaginase-containing induction regimen, both mild hypofibrinogenemia (92.9% vs. 63.9%) and severe hypofibrinogenemia (42.9% vs. 13.9%) were observed more frequently at induction phase (p=0.039 and p=0.036, respectively). In patients with mild hypofibrinogenemia at induction, the requirement for cryoprecipitate or fresh frozen plasma (FFP) was higher than in patients with normal fibrinogen levels (55.6% vs. 21.4%, p=0.030). D-dimer levels at diagnosis were higher in Ph-positive B-ALL than in Ph-negative B-ALL (median 15 vs. 4.3; p=0.030). D-dimer levels at induction phase were also higher in patients requiring cryoprecipitate or FFP (median 14.6 vs. 7.1; p=0.07). Early mortality (in the first 30 days) was 1 (2%), and was not associated with bleeding or thrombosis. No statistically significant association was found between age, gender, disease subtype, fibrinogen and D-dimer levels at diagnosis and induction phase, asparaginase use, or cryoprecipitate or FFP requirement and overall survival. **Conclusion:** In this study, we demonstrated that hypofibrinogenemia, while observed at diagnosis of ALL, is particularly prevalent during the induction phase. Hypofibrinogenemia at induction phase is determined by the fibrinogen levels at diagnosis and the use of asparaginase-containing regimens. Following, consumption of the blood products containing coagulation factors determined by the hypofibrinogenemia at induction phase. Although coagulopathy increased the frequency of blood product use, it was observed that it did not negatively impact patient survival. Clinical guidelines should be reviewed for newly diagnosed ALL patients with and without asparaginase use and updated based on large-scale studies.

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PP 03

RAM-like Acute Myeloid Leukemia in an Elderly Patient: A Rare Phenotypic Variant

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Introduction: Acute myeloid leukemia (AML) is a heterogeneous hematologic malignancy with diverse morphologic and immunophenotypic subtypes. The RAM (rapidly maturing) phenotype is a rare and poorly characterized variant, initially described in pediatric acute leukemia, but has also been identified in older adults (Wells et al., 2018). It is typically defined by CD45^dim, CD34−, CD117+, CD33++, and aberrant CD7 expression, with aggressive clinical behavior and poor prognosis (Nguyen et al., 2021). Here, we present a case of elderly-onset AML with RAM-like immunophenotypic features. **Methods:** A 81-year-old female presented with pancytopenia and recurrent subdural hemorrhages. Flow cytometry revealed CD45^dim, CD34−, CD117+, CD33++, and aberrant CD7+ blasts, consistent with RAM-like AML. Cytogenetic analysis showed no recurrent AML-defining translocations by FISH. Comprehensive molecular testing, including FLT3, NPM1, and CEBPA, was negative. Clinical frailty assessment demonstrated a high CIRS score, limiting intensive treatment options. **Results:** Bone marrow examination confirmed AML with RAM-like immunophenotype. Given the patient's age, comorbidities, and recurrent intracranial hemorrhages, intensive induction chemotherapy was contraindicated. Supportive care and hypomethylating agent-based therapy were considered but deferred due to poor functional status and ongoing hemorrhagic risk. The patient remained under best supportive care, including transfusions and infection prophylaxis. Prognosis was explained to the family as extremely poor, consistent with published literature (Al-Kershi et al., 2023). **Discussion:** RAM-like AML represents a high-risk immunophenotypic subset, characterized by treatment resistance and inferior outcomes (Wells et al., 2018). Most reported cases occur in children; however, adult and elderly cases are being increasingly recognized (Nguyen et al., 2021). This case highlights the diagnostic challenge and limited therapeutic options in elderly patients, particularly when performance status and comorbidities preclude intensive therapy. Early recognition through flow cytometry is essential for risk stratification and counseling. **Conclusion:** We report an elderly female with AML exhibiting RAM-like phenotype, an aggressive and rare immunophenotypic variant. Awareness of this entity is important for hematologists, as it informs prognosis and guides therapeutic decision-making, even when curative approaches are not feasible.

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PP 04

Incidentally Detected Precursor B-Cell Acute Lymphoblastic Leukemia in a Patient Monitored for Myocarditis: A Case Report

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Introduction: Hematologic abnormalities in young adults are frequently attributed to infections or reactive processes, yet concurrent cytopenias and lymphocytosis may herald