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

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

OP 13_Case report

TWO CASES OF PRIMARY AMYLOIDOSIS PRESENTING WITH VERTEBRAL AMYLOIDOMA

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

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

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

OP 14_Case report

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

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

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

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

OP 15

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

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