Adult Hematology Abstract Categories

Myeloma
OP 06

A TALE OF THE CRUMBLING AMYLOID WALL: BREAKING THROUGH LIVER STIFFNESS IN AL AMYLOIDOSIS

Metban Mastanzade [1,*], Bilger Çavuş [2], Sevgi Kalayoğlu Beşişik [1]

[1] *Istanbul University, Istanbul Faculty of Medicine, Department of Internal Medicine, Division of Hematology*
[2] *Istanbul University, Istanbul Faculty of Medicine, Department of Internal Medicine, Division of Gastroenterology*

Objective: Systemic AL amyloidosis is characterized by the deposition of misfolded amyloid fibrils in tissues, produced by clonal plasma cells. Daratumumab, a human IgG kappa-type monoclonal anti-CD38 antibody, is expressed on the surface of plasma cells, hematopoietic stem cells, regulatory T and B cells, monocytes, and dendritic cells. Due to this broad range of activity, daratumumab is thought to improve organ responses in AL amyloidosis through direct effects on tumor cells and via immunomodulatory mechanisms, providing additional therapeutic benefits. FibroScan, a noninvasive method for measuring liver stiffness, is routinely used today in the diagnosis and follow-up of chronic liver diseases. One condition that increases tissue stiffness is the accumulation of amyloid deposits in tissues. Various studies suggest that it can be useful in diagnosis when tested for this purpose. We aim to present two cases demonstrating that FibroScan can be a valuable tool not only in diagnosis but also in monitoring the progression of the disease. **Case report:** Case 1 A 53-year-old male patient was referred to our clinic after an incidental finding of M protein (2 g/dl) on serum protein electrophoresis requested at the Neurology Clinic, where he was being followed for epilepsy. An IgG lambda-type paraproteinemia was documented by immunofixation electrophoresis. His tongue was slightly noticeably enlarged. With suspicion of AL amyloidosis abdominal fat aspiration was performed, which revealed amyloid existence by Congo red stain positivity. He has no other organ involvement symptoms and signs but the liver was greater than normal size being 17 cm in the mid-clavicular line. The serum alkaline phosphatase (ALP) level was within normal limits. The liver elastography (FibroScan) result was 9 kPa, consistent with moderate scarring. He was monitored without intervention. Three years later when he developed peripheral neuropathy-related symptoms, AL amyloidosis management was decided. The liver size was similar and serum ALP level was still normal but the FibroScan result changed to severe scarring as being 9.1 kPa. Case 2 A 60-year-old female patient presented with a 20 kg weight loss over one year and chest pain. Imaging revealed diffuse infiltrates in the lungs. A bronchoscopy biopsy was consistent with AL amyloidosis. The patient had parenchymal lung involvement, anemia (Hb 9.7 g/dL), and an interventricular septal diameter (IVSD) of 1.5 cm. She was classified as Mayo 2012 stage 1 and Palladini renal stage 1. At diagnosis, her ALP level was 308 IU/L (laboratory upper limit: 130 IU/L) and her Fibroscan result was 51.2 kPa. The patient was started on daratumumab, bortezomib, cyclophosphamide, and dexamethasone therapy. After 18 months of monthly daratumumab treatment, follow-up measurements showed an ALP of 221 IU/L and a Fibroscan of 9.1 kPa. During the same period, hematological response was assessed as a very good partial response (dFLC: 19.6 mg/L), and NT-pro BNP decreased from 1558 to 512 pg/ml **Conclusion:** In the first case, liver stiffness measurements remained nearly stable over two years with a slight increase during clinical progression. In the second case, despite stage I cardiac and renal involvement, liver stiffness was very high and showed a striking reduction after treatment. Thus, liver stiffness may be an occult sign of liver involvement and may provide insights for monitoring disease progression

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OP 07

A SINGLE-CENTER REAL-LIFE EXPERIENCE WITH FIRST-LINE DARATUMUMAB, BORTEZOMIB, CYCLOPHOSPHAMIDE, AND DEXAMETHASONE (DARA-VCD) IN AL AMYLOIDOSIS

Metban Mastanzade [1,*], Meryem Merve Ören Çelik [2], Simge Erdem [1], Mustafa Murat Özbalak [1], İpek Yönal Hindilerden [1], Mustafa Nuri Yenerel [1], Sevgi Kalayoğlu Beşışık [1]

[1] *Istanbul University, Istanbul Faculty of Medicine, Department of Internal Medicine, Division of Hematology*
[2] *Istanbul University, Istanbul Faculty of Medicine, Department of Public Health*

Case Report: Systemic amyloidosis results from the production of misfolded immunoglobulin light chains by monoclonal CD38 + plasma cells. These misfolded light chains form amyloid fibrils, which accumulate in various tissues and cause organ damage. Following the results of the Phase 3 ANDROMEDA study, where the addition of daratumumab, an anti-CD38 agent, to first-line treatment showed favorable outcomes, Dara-VCD has become a standard first-line therapy. In this study, we compared the outcomes of patients with AL amyloidosis who were treated with first-line Dara-VCD in our clinic to those treated with other triplet regimens. **Methodology:** Patient's data with AL amyloidosis followed between 2010 and 2024 were retrospectively reviewed from the institution's database. Two groups were established patients treated with Dara-VCD and those without Dara. The clinical characteristics and response criteria were compared using SPSS 21. **Results:** A total of 52 patients were included in the study, with a mean age of 60 ± 10 years for the entire group. There was no statistically significant difference in the demographic distribution between the groups ($p = 0.003$). The median follow-up period was 32 months (1-114 months). In 27 (51.9%) patients, cardiac involvement was present, and 26

(50%) had renal involvement. The stages of these involvements are summarized in Table 1. In the group treated without Dara, the triplet regimens were VCD (n=30), VRD (n=3), and VMP (n=2). Mortality was significantly lower in the Dara-VCD group. When evaluating responses, progression was only in 1 (9%) patient in the Dara group, whereas in 8 (32%) in the without Dara group. The overall survival was not statistically significant between the two groups (log-rank p=0.394). (Figure 1). **Conclusion:** We used Dara after Health Authority approval and reimbursement in our country. So, we get the opportunity to compare Dara-added VCD effectiveness to VCD or VRD as a real-life analysis. Dara-VCD resulted in a significantly lower rate of progression and mortality compared to those without Dara. The follow-up duration was shorter for comment on overall survival. Additionally, 10 patients without the Dara group, did receive daratumumab with VCD (n=5), or with other agents (n=5)). With this study, we documented from a real-life experience addition of daratumumab to the VCD regimen in first-line treatment reduces mortality and progression in AL amyloidosis.

Table 1 – Patient Characteristics

	Dara-VCD (n=17)	Other Triplet Regimens (n=35)	P-value
Age (mean ± std)	65±6	57±11	**0,003**
Gender (F/M)	10 (%58.8)/7 (%41.2)	14 (%40)/21 (%60)	0,202
Median follow-up (months)	15(1-68)	36 (1-114)	0,108
ECOG performance score >2	7 (%43.8)	11 (%33.3)	0,273
Mayo 2012 Staging System			0,954
Stage 1	6 (%37.5)	10 (%29.4)	
Stage 2	3 (%18.8)	7 (%20.6)	
Stage 3	5 (%31,3)	12 (%35,3)	
Stage 4	2 (%12.5)	5 (%14.7)	
Palladini et al. Staging System			0,166
Stage 1	7 (%43.8)	18 (%51,4)	
Stage 2	7 (%43.8)	7 (%20)	
Stage 3	2 (%12.5)	10 (%28,6)	
dFLC (mg/L)	106,5 (4-1945)	95 (0-2425)	0,624
hs Pro BNP (median)	1769 (25-30117)	1184 (17-25113)	0,4
eGFR (mL/min)	71 (2-106)	85 (9-124)	0,264
ASCT	3 (%17,6)	12 (%34,3)	0,214
Mortality	3 (%17,6)	18 (%51,4)	**0,02**
Treatment Response (Hematologic)			**0,042**
VGPR and above	8 (%72,7)	7 (%28)	
SD	2 (%18,2)	10 (%40)	
Progression	1 (9,1)	8 (%32)	

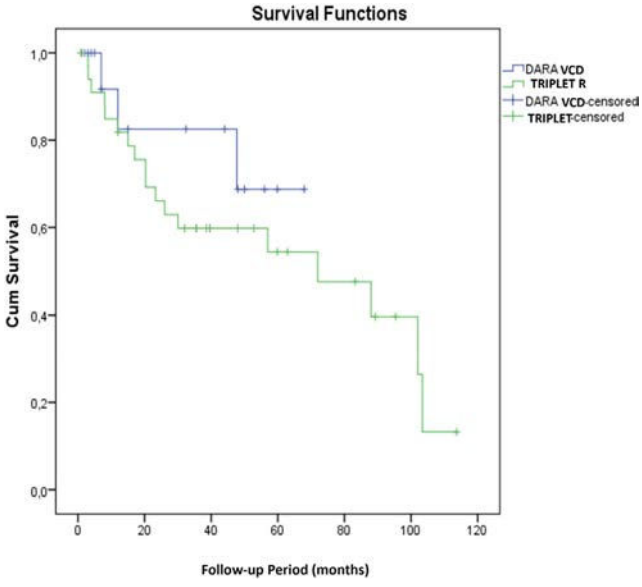

Figure 1: Overall Survival in Dara-VCD and without-Dara Triplet Treatment Groups

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OP 08

FROM MULTIPLE MYELOMA TO ACUTE MYELOID LEUKEMIA

Sevde Yazıcı Şahin [1,*], Büşra Özbek [1], Haşim Atakan Erol [2], Esra Terzi Demirsoy [1], Ayfer Gedük [1], Özgür Mehtap [1], Pınar Tarkun [1], Abdullah Hacıhanifioğlu [1]

[1] *Kocaeli University*
[2] *Başakşehir Çam ve Sakura City Hospital*

Objective: Multiple myeloma (MM) and acute myeloid leukemia (AML) are malignant clonal diseases of cells in different lineages. Only 79 cases of the two diseases occurring together have been reported in Pubmed in the last 10 years. However, simultaneous occurrence of MM and AML on presentation in chemotherapy-naive patients is rare, with only a 25 cases reported in the literature so far. [(1)]This case presents our experience with a patient who was diagnosed with AML shortly after the diagnosis of MM. **Case report:** A 57-year old male patient was referred to hematology due to pancytopenia. Serum immunofixation confirming monoclonal gammopathy of IgG kappa was detected. ß-2 microglobulin was found as 3,56 mg/dL. All routine tests required for MM diagnosis and follow-up were performed. (table 1) Bone marrow biopsy showed 40% plasma cell infiltration stained with CD38, CD138 and kappa. PET/CT scan revealed lytic lesions in the bones. t(4;14) was found positive in fluorescence in situ hybridization analysis. Bortezomib, lenalidomide, dexamethasone (VRD) regimen was started. After 4 cycles of VRD, the patient was hospitalized due to febrile neutropenia and severe dyspnea. Pulmonary embolism and pneumonic infiltration were not detected in thorax CT. However; bilateral septal edema and pleural effusion up to 3,5 cm were detected. Pleural fluid sampling was performed. No infectious agent was detected in exudative effusion. 3,25% myeloid blasts, 1,99% plasma cells were found by flow cytometry of pleural fluid. (figure 1) A bone marrow biopsy was performed again due to blasts in the pleural fluid results. Biopsy showed 40% myeloid blasts (CD117 and CD34) and 18% plasma cells in the bone marrow parenchyma. (figure 2) We decided to treat the patient with 7+3 induction chemotherapy (Idarubicin and cytarabine) with daratumumab and dexamethasone (Dara-d). After induction and one course of dara-d, bone marrow biopsy was performed again to evaluate response. The patient could not achieve remission and died due to acute respiratory failure. **Results Conclusion:** Multiple myeloma (MM) and acute myeloid leukemia (AML) may usually develop in the same patient but they are generally seen in MM patients receiving chemotherapy and in due course of treatment AML develops. (2) Presence of AML with MM in a shortly after treatment begins is an extremely rare occurrence. Concurrent diagnosis of these two hematological malignancies yields a poor prognosis. (3)References:(1) Jamal I, Shuchismita S, Choudhary V. Twin Malignancy of Acute Myeloid Leukemia and Multiple Myeloma in a Chemotherapy-Naïve Patient: A Rare Occurrence. J Lab Physicians. 2022 Oct 20;15(2):306-310. doi: 10.1055/s-0042-1757588. PMID: 37599817; PMCID: PMC10437150.(2) Parapia L, Abbott CR, Masters G, Roberts BE. Simultaneous pre