CONCOMITANT LYMPHOPLASMACYTIC LYMPHOMA, MULTIPLE MYELOMA AND AMYLOIDOSIS, A DIAGNOSTIC AND THERAPEUTIC CHALLENGE

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Abstract

We report a case based on simultaneous occurrence of Waldenström macroglobulinemia, myeloma and amyloidosis as a collision neoplasm. The strangeness and severity of the case presented a diagnostic and therapeutic challenge, which required individualised treatment and close follow-up to achieved stringent complete response.

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Figure 1. A. The tumor is densely cellular and shows diffuse growth; with three cell types are seen in the tumor: small lymphocytes, plasma cells and plasmacytoid cells (Hematoxylin and eosin (H&E), x200). B. Large plasmacytoid cells of large size and anaplasia with frequent binucleation, large nucleoli, and intranuclear pseudoinclusions (H&E, x400) C. Small lymphocytes were positive for CD45 D. Small lymphocytes and some plasmacytoid cells were positive for CD20. E and F. In situ hybridization shows clonal restriction of Lambda light chains G. Interstitial deposit between tumor cells of a homogeneous, hyaline acellular material, slightly Periodic acid–Schiff (PAS) positive (PAS, x400) H. Plasma cells and plasmacytoid cells of large size and anaplasia were diffusely positive for CD138 I. The interstitial deposit was Congo red positive (congo red, x400) J. Plasma cells showed diffuse and intense nuclear positivity for cyclin D1.

	At diagnosis	Before ASCT	After ASCT
ECOG	2	1	0-1
Blood count			
Hemoglobin (12-17 g/dL)	Hb 11,6 g/dL	Hb 14 g/dL	Hb 13,8 g/dL
Leucocytes (4-11 x10 ⁹ /L)	L 7 x 10 ⁹ /L N 5,8 x 10 ⁹ /L	L 7,5 x 10 ⁹ /L N 6,1 x 10 ⁹ /L	L 4,7 x 10 ⁹ /L N 2,6 x 10 ⁹ /L
Neutrophils (1,8-4 10 ⁹ /L)	L 1 x 10 ⁹ /L	L 0,5 x 10 ⁹ /L	L 1,3 x 10 ⁹ /L
Lymphocytes (1-4 x10 ⁹ /L)			
Creatinine (0,72-1,25 mg/dL)	1,36 mg/dL	0,92 mg/dL	0,78 mg/dL
Calcium (8,4-10,2 mg/dL)	11,2 mg/dL	9,5 mg/dL	9,4 mg/dL
B2 microglobulin (0-2400 ug/L)	5585 ug/L	2552 ug/L	
Albumin (35-52 g/L)	38 g/L	43 g/L	46 g/L
Serum quantitative IgM (0,22-2,4 g/L)	1168 mg/dL	<0,25 g/L	<0,25 g/L
Lambda free light (5,7-26,3 mg/L)	672 mg/L	29,7 mg/L	1,7 mg/L
N-terminal pro-brain natriuretic peptide (NT-proBNP) (0-125 pg/ml)	1420,9 pg/ml	148,2 pg/ml	88,2 pg/ml
Monoclonal proteinlevel	Positive 0,6 g/dL	Positive 0,03 g/dL	Positive 0,03 g/dL
Flow cytometry in bone marrow aspirate	14,8 % monoclonal B cells (lambda+) 7,92% abnormal plasma cells (CD38+, CD19-, CD45-)	There are no monoclonal B cells (lambda+) suggestive 1,08% abnormal plasma cells (CD38+, CD19-, CD45-)	B cells normal Absence of plasma cells
Bone marrow aspirate	33,6 % lymphoplasmacytic lymphocytes	Absence of lymphoplasmacytic lymphocytes	Cytomorphology normal
Bone marrow hystomorphology	14 % plasma cells	3,6% of plasma cells	

Table 1. Clinical and biological characteristics at diagnosis, and its evolution through the treatment; before ASCT and at day 100 after ASCT.