XIX CONGRESSO NAZIONALE SIES2026
Firenze | 4-6 marzo 2026 Palazzo degli Affari

XIX Congress of the Italian Society of Experimental Hematology ABSTRACT N. P106

Monoclonal Gammopathies & Multiple Myeloma

CD20 POSITIVE MULTIPLE MYELOMA: IS IT A DIFFERENT ENTITY?

V. Panichi[1], G. Tomei[2], G. De Angelis[2], E. Palamides[1], M. G. Chavez[3], L. Bassi[4], M. Poscente[4], R. Isidori[4], G. Topini[1], C. Stefanizzi[2], F. Natalino[2], R. Agrippino[3], G. Trapè[2], A. andriani[2], M. Montanaro[2], M. A. Silvestri[1], G. Pessina[4], R. Latagliata[2]

[1]UOC Diagnostica Clinica, Laboratorio di Citofluorimetria, Ospedale Santa Rosa, ASL Viterbo; [2]UOC Ematologia, Ospedale Santa Rosa; ASL Viterbo; [3]Servizio di Medicina Trasfusionale (SIMT), Ospedale Santa Rosa, ASL Viterbo; [4]UOSD Laboratorio Genetica Medica, Ospedale Santa Rosa, ASL Viterbo.

Introduction: Expression of CD20 antigen is generally negative in patients (pts) with multiple myeloma (MM). However, a small number of MM pts (15-20%) can show CD20 positivity on neoplastic plasma cells (PC). The biologic and clinical features of pts with MM CD20+ are still a matter of debat.
Methods: From 1/2018 to 12/2023, all consecutive patients with MM newly diagnosed at our Center according to IMWG (International Myeloma Working Group) criteria were retrospectively evaluated. Immunophenotypic characterization of marrow PC was performed by multiparametric analysis with sequential gates through the expression of CD38/CD45, CD38/CD138 antigens. FISH was performed on isolated PC with probes from MM panel. Classical cytogenetic analysis using G-banding (GTG) was also done. Morphology of BM aspirate was independently reviewed by two different hematologists. Histology of BM was reviewed to define the grade of infiltration, type of infiltration, and intensity of CD20 positivity
Results: Among 104 evaluable pts, 23 (22,1%) were CD20+ and 81 (77.9%) CD20-: no significant differences were observed between CD20+ and CD20- pts as to the main clinical features at baseline. The main karyotypic and immunophenotypic features at diagnosis of the entire cohort and according to CD20 status are reported in Table 1. CD20+ pts presented a significant high rate of t(11;14) (43.5% vs 16.2%, p=0.006) and a trend for a lower rate of high-risk alterations (19.4% vs 37.8%, p=0.069). According to immunophenotype, CD20+ pts showed a significant higher co-expression of CD19 (22.7% vs 6.2%, p=0.020) and a trend for a lower co-expression of CD56 (52.2% vs 71.6%, p=0.080). Morphologic evaluation was done in 10 CD20+ pts, revealing a distinctive small-like lymphocyte morphology in more than 50% of PC in all 10 revised aspirates.
Conclusions: MM CD20+ pts seem to share distinctive features from classical MM. The presence of CD20 positivity, coupled with the common coexpression of CD19 and the predominant small lymphocyte–like morphologic features, suggests that neoplastic transformation could occur at a relatively more immature stage of differentiation than CD20- MM: in other words, CD20 positive MM could be considered as an intermediate phase between Waldenstrom disease and classic CD20 negative MM. Further studies are warranted to define the prognostic role of CD20 positivity and the possible utility of targeted therapies in this subset.

Table. Main karyotypic and immunophenotypic features at diagnosis according to CD20 status

	Entire cohort (104)	CD20+ (23)	CD20- (81)	p
FISH alterations, n° evaluable (%)	98	22	76	
None	26 (26.5)	6 (27.3)	20 (26.3)	
1 alteration	14 (14.3)	4 (18.2)	10 (13.2)	0.330
2 alterations	21 (21.4)	7 (31.8)	14 (18.4)	
≥ 3 alterations	37 (37.8)	5 (22.7)	32 (42.1)	
Cytogenetic risk, n° evaluable (%)	97	23	74	
Standard risk	65 (67.0)	19 (82.6)	46 (62.2)	0.069
High risk	32 (33.0)	4 (19.4)	28 (37.8)	
Del 13q, n° evaluable (%):	98	23	75	
No	68 (69.4)	13 (56.5)	55 (73.3)	0.126
Yes	30 (30.6)	10 (43.5)	20 (26.7)	
t(11;14), n° evaluable (%):	97	23	74	
No	75 (77.3)	13 (56.5)	62 (83.8)	0.006
Yes	22 (22.7)	10 (43.5)	12 (16.2)	
Ampl 1q, n° evaluable (%):	98	23	75	
No	79 (80.6)	21 (91.3)	58 (77.3)	0.138
Yes	19 (19.4)	2 (8.7)	17 (22.7)	
Ampl 11q, n° evaluable (%):	98	23	75	
No	87 (88.8)	22 (95.7)	65 (86.7)	0.232
Yes	11 (11.2)	1 (4.3)	10 (13.3)	
Ampl 14q, n° evaluable (%):	98	23	75	
No	89 (90.8)	22 (95.7)	67 (89.3)	0.359
Yes	9 (9.2)	1 (4.3)	8 (10.7)	
CD56, n° evaluable (%):	104	23	81	
Negative	34 (32.4)	11 (47.8)	23 (28.4)	0.080
Positive	70 (67.6)	12 (52.2)	58 (71.6)	
CD117, n° evaluable (%):	103	22	81	
Negative	46 (44.7)	9 (40.9)	37 (45.7)	0.690
Positive	57 (55.3)	13 (58.1)	44 (54.3)	
CD19, n° evaluable (%):	103	22	81	
Negative	93 (90.3)	17 (77.3)	76 (93.8)	0.020
Positive	10 (9.7)	5 (22.7)	5 (6.2)	