

Prognostic impact of the immune microenvironment in multiple myeloma: a meta-analysis of current studies

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TABLES

Supplementary Table 1: Characteristics of the studies.

Study	Year	Country	Patient s numbe r	Age	Cell	Antige n	HR	95% CI l.l.	95% CI u.l.	Method	Cut-off	NOS
Willenbacher et al. ¹	2016	Austria	43		CD4		7,7 0	1,40	50,00	IHC	0,28%	Good quality
Danziger et al. ²	2020	USA	286	58	B cells		1,3 3	0,83	2,13	Digital cell quantifier		Good quality
					CD4		3,8 2	0,53	27,55			
					CD8		1,8 4	1,21	2,78			
					Dendritic cells		1,4 2	0,98	2,05			
					Eosinophils		0,7 3	0,45	1,18			
					Plasma cells		1,2 7	0,76	2,11			
					M0 macrophage s		0,7 8	0,47	1,31			
					M1 macrophage s		1,4 1	0,91	2,17			
					M2 macrophage s		0,9 9	0,60	1,63			
					Mast cells		0,4 6	0,28	0,75			
					Monocytes		0,7 1	0,45	1,14			

					Neutrophils		0,5 6	0,35	0,90			
					NK cells		0,7 6	0,46	1,26			
					Gamma- delta T cells		1,1 3	0,79	1,61			
Wang et al. ⁶	2019	China	198		M2 macrophage s	CD163	8,3 7	3,68	19,10	IHC	55/hpf	Good quality
Lee et al. ³	2020	South Korea	126			PDL1	3,1 4	1,65	5,99	Quantitative immunofluorescen ce	7,65	Good quality
Stork et al. ⁷	2021	Czech Republic	98		B cells		0,9 9	0,96	1,01	Flow cytometry		Good quality
					pre-B I cells		0,9 5	0,83	1,08			
					pre-B II cells		0,9 9	0,96	1,01			
					Immature B cells		0,9 6	0,88	1,05			
					Mature B cells		1,0 1	0,99	1,04			
					Memory B cells		1,1 7	1,07	1,27			
					T cells		1,0 0	0,98	1,03			
					Memory T cells		1,0 3	0,98	1,08			
					Activated memory T cells		0,9 9	0,94	1,04			
					NK cells		1,0 3	0,99	1,08			
					NKT cells		1,0 6	1,00	1,11			

Chen et al. ⁸	2017	China	240	63	Macrophages	CD68	1,48	1,44	3,07	IHC	40/field	Good quality
					M1 macrophages	iNOS	0,50	0,34	0,75			
					M2 macrophages	CD163	2,93	2,00	4,29			
Lee et al. ⁹	2021	South Korea	109	66		gal-9	2,08	0,87	4,97	Immunofluorescence	MFI 5 (gal-9 expression); 1% (gal-9 positivity); MFI 9,78 (PDL1)	Good quality
						gal-9 (PDL1 high)	5,25	1,20	22,90			
						gal-9 (PDL1 low)	0,85	0,20	3,50			
Brown et al. ¹⁰	2009	Australia	120		T cells		2,20	1,00	5,00	Flow cytometry		Good quality
Shi et al. ⁴	2020	China	131	62		CD200	2,30	1,20	4,40	Flow cytometry		Good quality
Mutsaers et al. ¹¹	2021	Netherlands	1654			VISTA	0,76	0,67	0,86	Multiplexed immunofluorescence		Good quality
						CD40	0,81	0,64	1,00			
Solimando et al. ⁵	2021	Germany-Italy	312			JAM-A	9,11	2,79	29,76	IHC		Good quality

NOS: Newcastle.Ottawa Scale; CD: Cluster of differentiation; PDL1: Programmed death ligand 1; iNOS: Inducible nitric oxide synthase; gal-9: Galectin-9; VISTA: V-domain Ig suppressor of T cell activation; JAM-A: Junctional adhesion molecule-A; IHC: Immunohistochemistry; hpf: High-power field; MFI: Mean fluorescence intensity.