

Younger donor's age and upfront tandem are two independent prognostic factors for survival in multiple myeloma patients treated by tandem autologous-allogeneic stem cell transplantation: a retrospective study from the Société Française de Greffe de Moelle et de Thérapie Cellulaire (SFGM-TC)

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Online Supplementary Table S1A. Univariate analysis of overall survival, event-free survival and transplant-related mortality following tandem autologous-allogeneic SCT (Cox's regression)

Variable	Value	Deaths/ total	Overall Survival (95% CI)	P value(+)	N. events/ total	Event-Free Survival (95% CI)	P value(+) total	N events/ total	Transplant- related mortality (95% CI)	P value(+)
Gender	Female	26/60	0.51 (0.37-0.65)	0.45	39/60	0.31 (0.19-0.45)	0.7	9/60	0.15 (0.08-0.27)	0.98
	Male	43/86	0.46 (0.34-0.57)		57/86	0.24 (0.15-0.35)		13/86	0.15 (0.09-0.24)	
Age at diagnosis (years)	< 50	28/69	0.54 (0.41-0.67)	0.05	41/69	0.35 (0.24-0.49)	0.02	10/69	0.14 (0.08-0.25)	0.85
	≥ 50	41/77	0.42 (0.30-0.55)		55/77	0.19 (0.11-0.31)		12/77	0.16 (0.09-0.26)	
β2 microglobulin	Missing data	38/77		0.54	49/77		0.98	10/77		0.73
	> 3 mg/L	24/48	0.53 (0.38-0.67)		33/48	0.25 (0.14-0.39)		8/48	0.17 (0.08-0.3)	
	≤ 3 mg/L	7/21	0.59 (0.35-0.79)		14/21	0.25 (0.10-0.51)		4/21	0.19 (0.07-0.41)	
Isotype	Missing data	3/6		0.69	4/6		0.37	2/6		0.37
	G, A, D	51/108	0.47 (0.36-0.58)		73/108	0.23 (0.15-0.34)		17/108	0.16 (0.10-0.24)	
	Light chain, non secretory	15/32	0.52 (0.34-0.69)		19/32	0.33 (0.18-0.52)		3/32	0.09 (0.03-0.27)	
Durie Salmon stage	Missing data	5/13		0.91	7/13		0.39	3/13		0.29
	I	4/8	0.47 (0.21-0.75)		5/8	0.33 (0.12-0.64)		2/8	0.25 (0.07-0.6)	
	II	8/17	0.55 (0.32-0.76)		11/17	0.35 (0.16-0.59)		3/17	0.18 (0.06-0.43)	
	III	52/108	0.47 (0.37-0.58)		73/108	0.25 (0.17-0.35)		14/108	0.13 (0.08-0.21)	
ISS score	Missing data	34/71		0.66	44/71		0.79	9/71		0.76
	1	13/27	0.46 (0.28-0.65)		20/27	0.19 (0.07-0.42)		5/27	0.19 (0.08-0.38)	
	2	8/21	0.68 (0.45-0.84)		14/21	0.31 (0.15-0.52)		2/21	0.1 (0.02-0.34)	
	3	14/27	0.46 (0.28-0.66)		18/27	0.21 (0.09-0.41)		6/27	0.22 (0.10-0.41)	
Renal stage	Missing data	24/48		0.79	31/48		0.29	7/48		0.64
	A	38/82	0.49 (0.37-0.61)		54/82	0.25 (0.16-0.37)		12/82	0.15 (0.08-0.24)	
	B	7/16	0.57 (0.33-0.78)		11/16	0.29 (0.13-0.52)		3/16	0.19 (0.06-0.45)	
	Missing data	36/75			47/75			12/75		
Chromosome 13 deletion	No	11/31	0.60 (0.40-0.78)	0.2	19/31	0.26 (0.13-0.46)	0.53	5/31	0.16 (0.07-0.34)	0.65
	Yes	22/40	0.43 (0.28-0.59)		30/40	0.18 (0.08-0.34)		5/40	0.13 (0.05-0.27)	
Number of treatment lines before tandem procedure	1	35/77	0.56 (0.45-0.67)	0.10	50/77	0.36 (0.26-0.47)	0.02	8/77	0.1 (0.05-0.20)	0.24
	2	29/56	0.32 (0.18-0.49)		38/56	0.09 (0.03-0.26)		12/56	0.21 (0.13-0.34)	
	3	1/6	0.83 (0.38-0.98)		2/6	0.67 (0.32-0.9)		1/6	0.17 (0.02-0.62)	
	> 3	4/7	0.57 (0.27-0.83)		6/7	0.29 (0.10-0.6)		1/7	0.14 (0.02-0.59)	

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Number of auto-SCT before tandem	0	44/93	0.53 (0.42-0.63)	0.03	63/93	0.31 (0.22-0.42)	0.05	11/93	0.12 (0.07-0.2)	0.03
	1	13/35	0.43 (0.23-0.65)		19/35	0.17 (0.06-0.41)		5/35	0.14 (0.06-0.31)	
	2	12/18	0.25 (0.10-0.5)		14/18	0.09 (0.02-0.35)		6/18	0.33 (0.16-0.56)	
Upfront tandem	No	34/69	0.34 (0.21-0.5)	0.02	46/69	0.11 (0.04-0.26)	0.005	14/69	0.2 (0.12-0.31)	0.08
	Yes	35/77	0.56 (0.45-0.67)		50/77	0.36 (0.26-0.47)		8/77	0.1 (0.05-0.2)	
CD34+ dose for auto-SCT ($\times 10^6/\text{kg}$) of the tandem	≤ 4	42/97	0.47 (0.36-0.59)	0.72	60/97	0.27 (0.18-0.39)	0.58	16/97	0.16 (0.10-0.25)	0.53
	> 4	27/49	0.5 (0.36-0.64)		36/49	0.26 (0.16-0.41)		6/49	0.12 (0.05-0.25)	
Allo-SCT conditioning regimen	Myeloablative	9/17	0.47 (0.27-0.68)	0.93	11/17	0.35 (0.18-0.57)	0.39	4/17	0.24 (0.09-0.48)	0.31
	Non myeloablative	60/129	0.48 (0.38-0.58)		85/129	0.25 (0.17-0.35)		18/129	0.14 (0.09-0.21)	
TBI	No	44/81	0.46 (0.35-0.58)	0.55	63/81	0.24 (0.16-0.35)	0.11	13/81	0.16 (0.10-0.26)	0.66
	Yes	25/65	0.5 (0.35-0.64)		33/65	0.31 (0.19-0.46)		9/65	0.14 (0.07-0.25)	
CD34+ dose for allo-SCT ($\times 10^6/\text{kg}$) of the tandem	≤ 5.7	47/91	0.42 (0.31-0.53)	0.07	61/91	0.24 (0.15-0.35)	0.21	15/91	0.16 (0.10-0.26)	0.57
	> 5.7	22/55	0.57 (0.42-0.71)		35/55	0.31 (0.19-0.45)		7/55	0.13 (0.06-0.25)	
Stem cell source	Cord blood	0/4			1/4			0/4		
	PBSC	64/136	0.49 (0.40-0.58)	0.12	90/136	0.27 (0.19-0.36)	0.29	21/136	0.15 (0.10-0.23)	0.82
	BM	5/6	0.17 (0.04-0.51)		5/6	0.17 (0.04-0.51)		1/6	0.17 (0.02-0.62)	
Donor type	Sibling	55/115	0.51 (0.41-0.6)	0.29	80/115	0.26 (0.18-0.36)	0.75	17/115	0.15 (0.09-0.23)	0.9
	Unrelated	14/31	0.31 (0.14-0.56)		16/31	0.27 (0.12-0.5)		5/31	0.16 (0.07-0.34)	
	Missing data	2/4			2/4			1/4		
Donors' age (years)	≤ 50	30/79	0.54 (0.41-0.67)	0.02	45/79	0.35 (0.24-0.48)	0.005	6/79	0.08 (0.03-0.16)	0.006
	> 50	37/63	0.41 (0.29-0.55)		49/63	0.16 (0.08-0.28)		15/63	0.24 (0.15-0.36)	
Chimerism	Full	56/125	0.50 (0.40-0.60)	0.03	79/125	0.28 (0.20-0.38)	0.0006	21/125	0.17 (0.11-0.24)	0.16
	Mixed	13/21	0.35 (0.17-0.59)		17/21	(0.07-0.41)		1/21	0.05 (0.00-0.37)	
All patients		69/146	0.48 (0.39-0.57)		96/146	0.27 (0.19-0.36)		22/146	0.15 (0.10-0.22)	

Allo-SCT indicates allogeneic transplantation; Auto-SCT, autologous transplantation; BM: bone marrow; ISS: International Staging System; PBSC: peripheral blood stem cells; TBI: total body irradiation. P value(+): log-rank P-value comparing groups with non data available for the studied parameter.

Online Supplementary Table S1B. Multivariable analysis of overall survival, event-free survival and transplant-related mortality following tandem auto-allo-SCT (Cox's regression).

Variable	Overall survival		Event-free survival		Transplant-related mortality	
	HR (95% CI interval)	P value	HR (95% CI interval)	P value	HR (95% CI interval)	P value
Number of auto-SCT before tandem ≥ 1	1.40 (1.02-1.93)	0.04			1.91 (1.15-3.19)	0.01
Upfront tandem			0.56 (0.37-0.85)	0.006		
Donor's age > 50 years	1.99 (1.22-3.25)	0.006	2.13 (1.40-3.25)	0.0004	3.86 (1.49-9.97)	0.006
Full chimerism	0.46 (0.25-0.86)	0.02	0.35 (0.20-0.61)	0.0002		

Results are presented as hazard ratio (HR) with corresponding 95 % confidence interval (95 % CI) and P values.