

Haploidentical Allogeneic Hematopoietic Cell Transplantation for Mantle Cell Lymphoma Using Post-Transplantation Cyclophosphamide Graft-versus-Host Disease Prophylaxis.

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Background

- MCL patients who relapse after intensive first-line therapy have limited options to achieve durable disease control with conventional and novel therapies
- Allogeneic stem cell transplantation can be an option

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Background

Authors	N	Disease status	OS@3-5y	PFS	Relapse	NRM
Robinson 2002	22	CT S 73%	13%		100%	82%
Maris 2004	33	CT S 54%	64%	60%	16%	24%
Armand 2008	15	/	42%	22%	33%	37%
Tam 2009	35	CT S 83%	53%	46%	/	9%
Cook 2010	70	CT S 83%	37%	14%	65%	21%
Hamadani 2013	202	Refractory 100%	25%	20%	33%	43%
Kruger 2014	54	CT S 100%	73%	67%	15%	24%
Mussetti 2015	29	CT S 90%	54%	41%	28%	29%
Vaughn 2015	33	CT S 64%	55%	46%	26%	28%
Tessoulin 2016	106	CT S 80%	62%	42%	24%	29%
Robinson 2018	324	CT S 65%	40%	31%	40%	24%

Median	53% (13-73)	42% (22-67)	28% (15-100)	28% (9-82)
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MRD and UD donors

Background

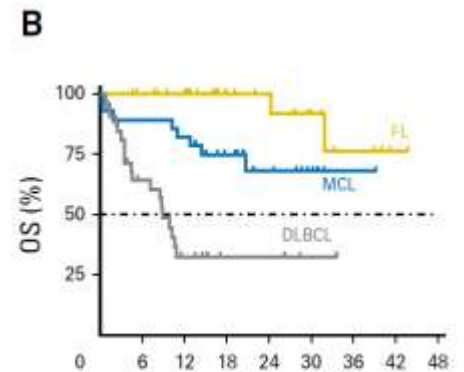
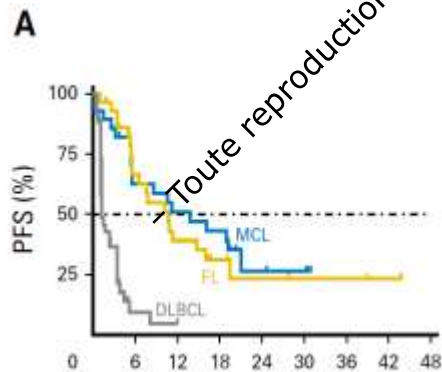
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Treatment	No. patients	ORR	CR	Median DOR (months)	Median PFS (months)	Median OS (months)
Ibrutinib ¹⁶	111	68%	21%	17.5	13.9	Not reached
Bortezomib ⁴⁹	155	33%	8%	9.2	6.5	23.5
Lenalidomide ⁵¹	134	28%	8%	16.0	4	19
Temsirolimus ⁵⁰	54*	22%	2%	7.1	4.8	12.8

Campo, Blood 2015

Venetoclax

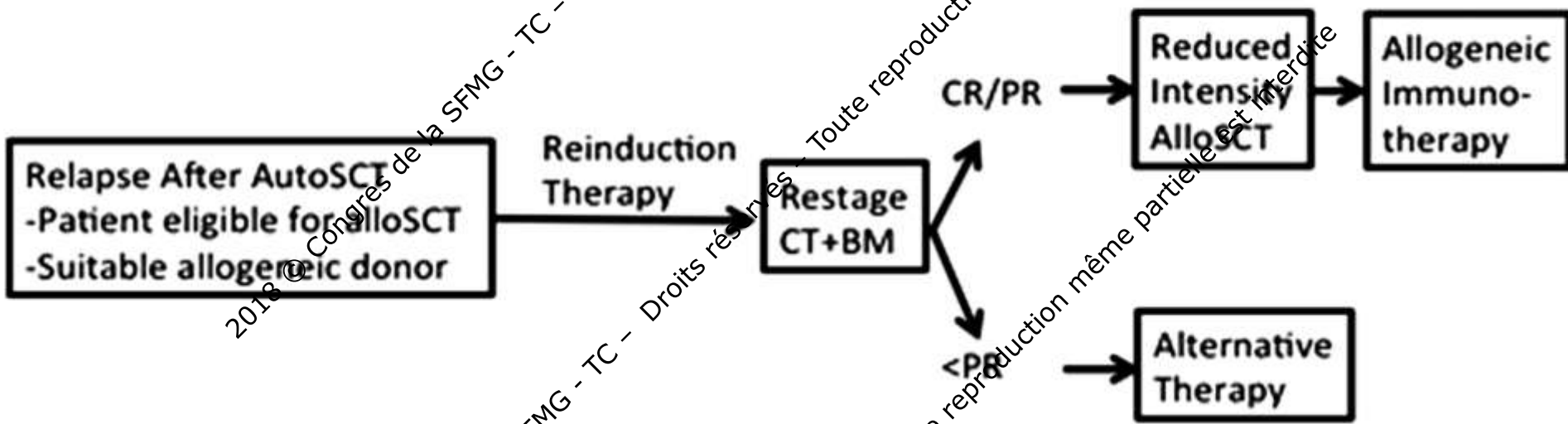
Best Objective Response	All Patients (N = 106)*	MCL (n = 28)
Overall response	47 (44)	21 (75)
CR	14 (13)	6 (21)
PR	33 (31)	15 (54)
SD	2 (30)	5 (18)
PD	24 (23)	2 (7)



Dauids, JCO 2017

The EBMT/EMCL consensus project on the role of autologous and allogeneic stem cell transplantation in mantle cell lymphoma

2. Relapse After First Line AutoSCT

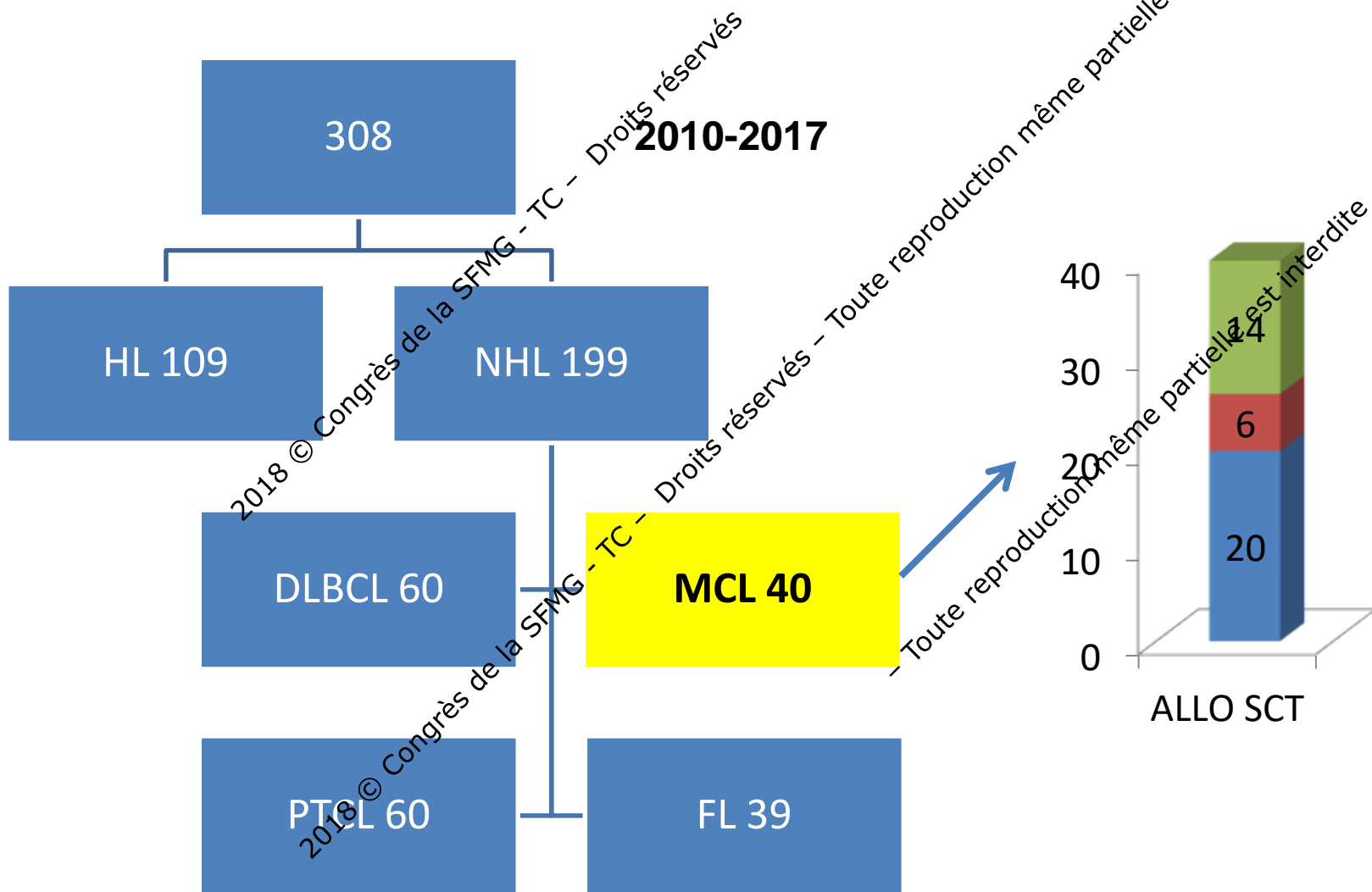


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Allo-SCT program in lymphoma patients Marseille-Milan



Patient characteristics

	N= 20
Median age (years, range)	65 (35-71)
Disease risk	
Previous autologous	10 (50%)
Previous allogeneic	1 (5%)
Primary refractory disease	9 (45%)
Disease status	
CR	15 (75%)
PR	4 (20%)
PD	1 (5%)
TCT-CI	
0-1	4 (20%)
2-3	12 (60%)
4-5	4 (20%)
Donor relationship	
Offspring	17 (85%)
Sibling	2 (10%)
Parent	1 (5%)
Conditioning regimen	
NMAC	16 (80%)
RIC	4 (20%)
CMV serostatus (D/R)	
neg/neg	6 (30%)
neg/pos	4 (20%)
pos/neg	3 (15%)
pos/pos	7 (35%)
Stem cells source	
PBSC	15 (75%)
BM	5 (25%)
Median follow up (months)	23 (5-73)

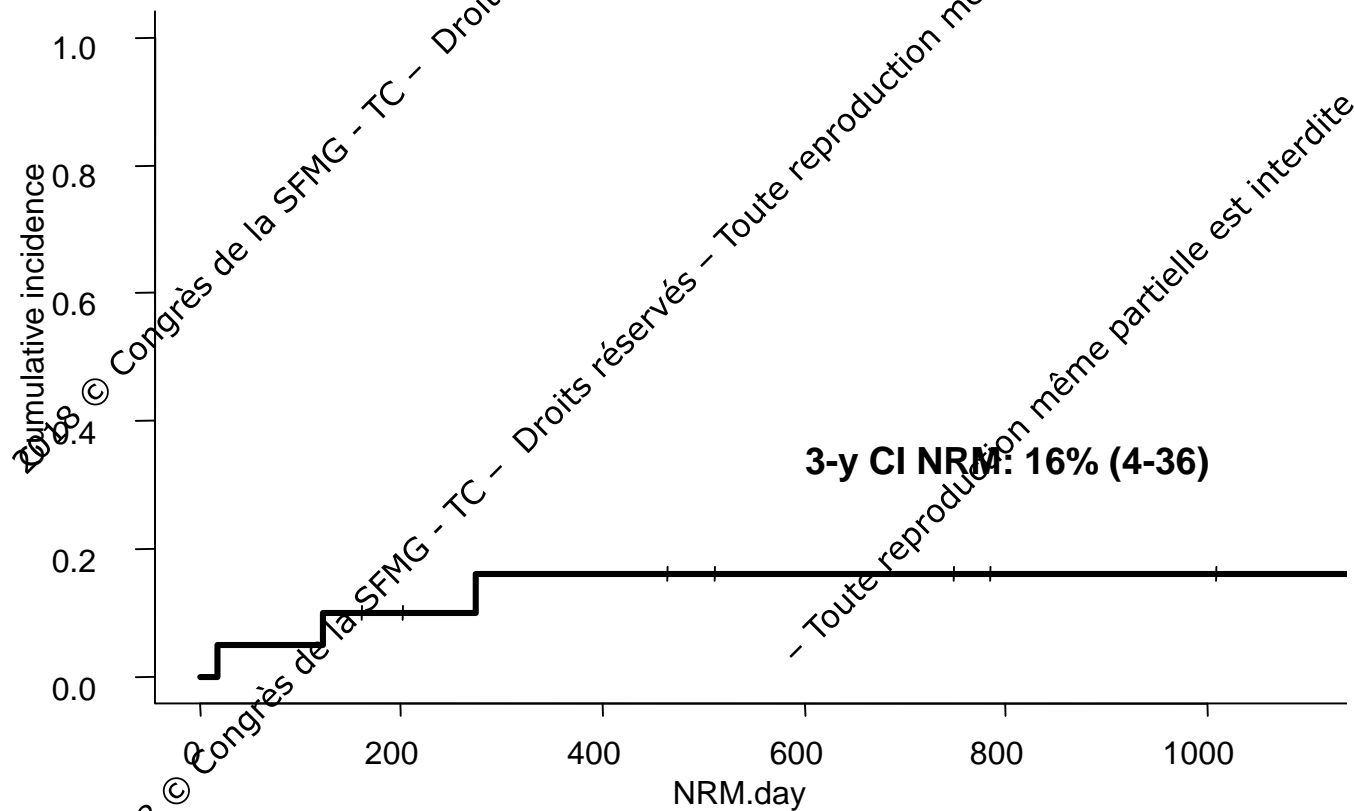
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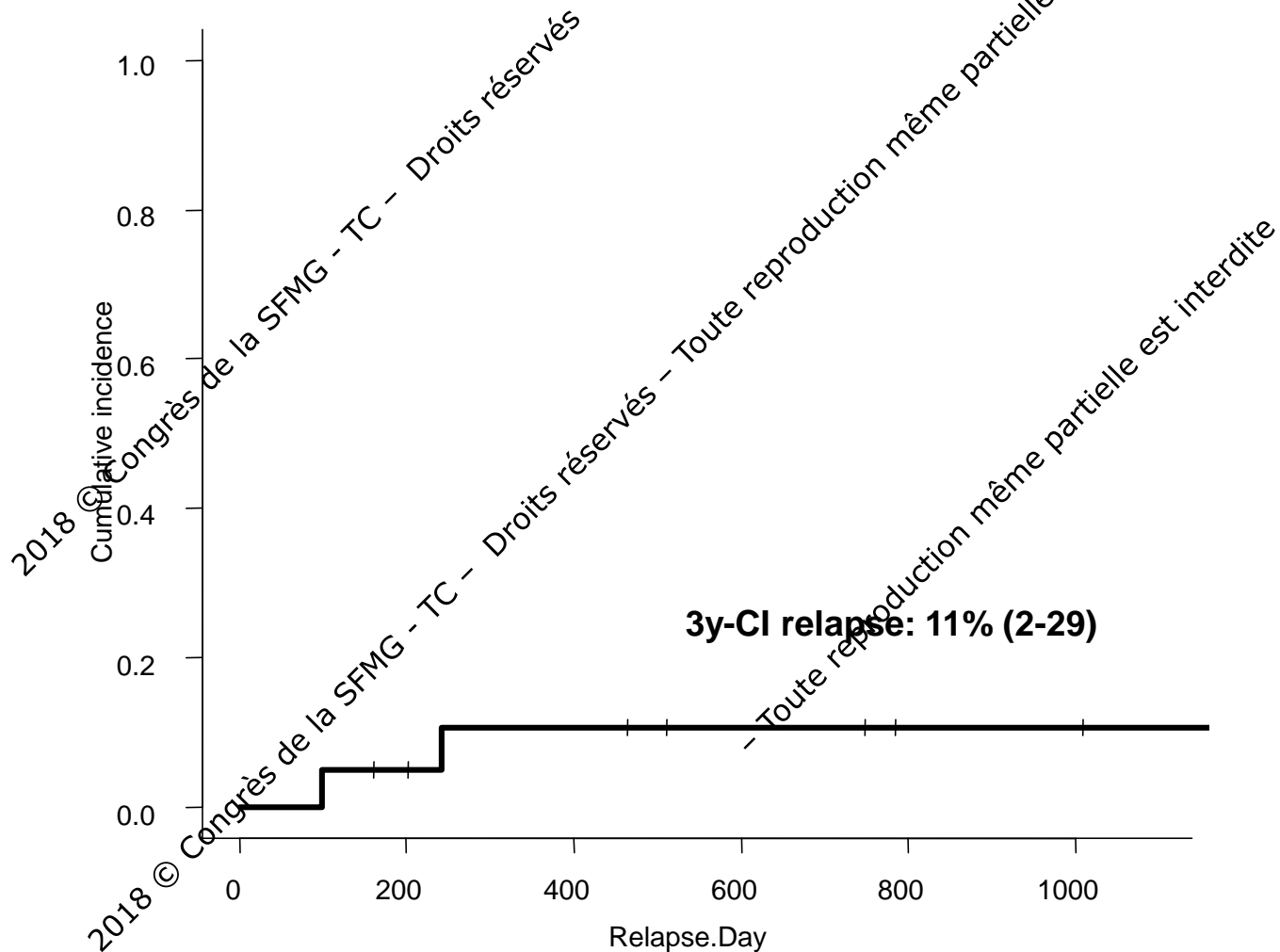
Results after haplo: GVHD

- 100-day CI of aGVHD grade 2-4 was 35% (95% CI, 15% to 56%)
- 2-year CI of moderate-severe cGVHD was 11% (95% CI, 2% to 30%)

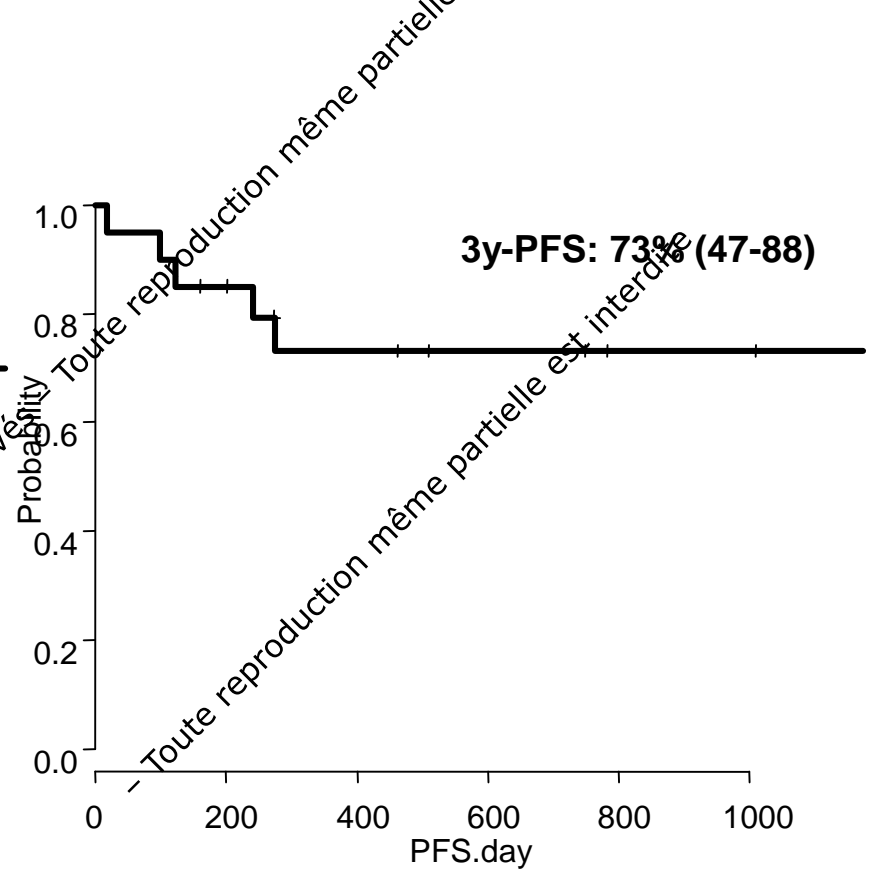
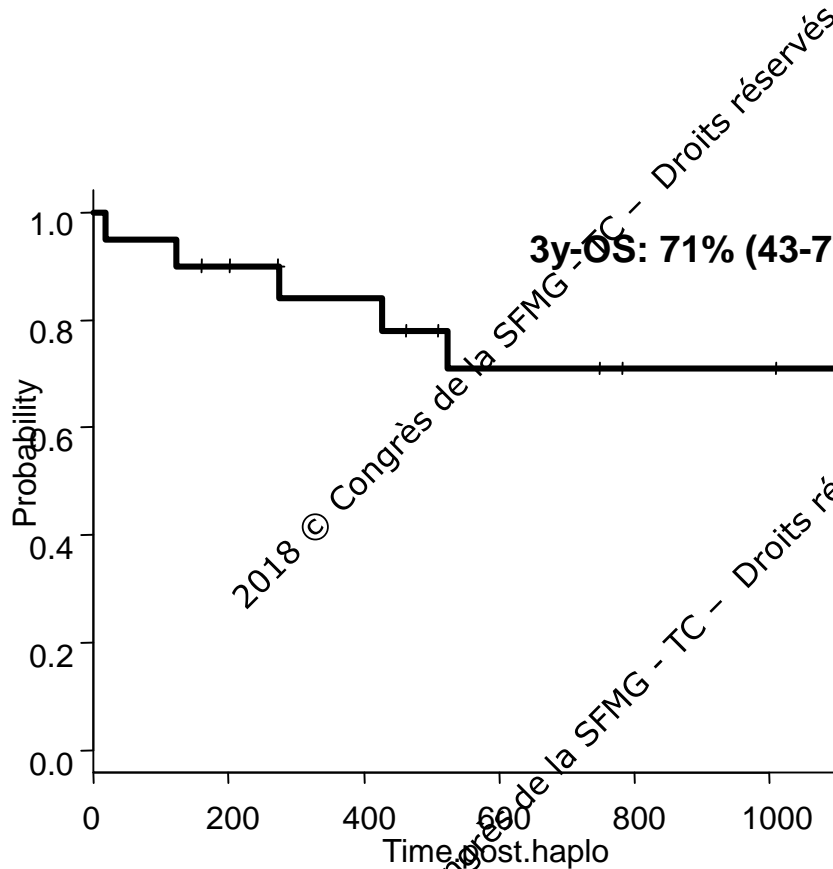
Results after haplo: NRM



Results after haplo: relapse



Results after haplo: OS and PFS



Haplo vs MRD/MUD

	Haploidentical, n=20	MRD/MUD, n=20
Median age (years, range)	65 (35-71)	65 (35-71)
Disease risk		
Previous autologous	10 (50%)	17 (85%)
Previous allogeneic	1 (5%)	/
Failure PBSC mobilization	/	1 (5%)
Primary refractory disease	9 (45%)	2 (10%)
Disease status		
CR	15 (75%)	17 (85%)
PR	4 (20%)	2 (10%)
D	1 (5%)	1 (5%)
Donor		
Sibling		6 (30%)
MUD		14 (70%)
Haploidentical	20 (100%)	/
Conditioning regimen		
NMAC	16 (80%)	/
RIC	4 (20%)	19 (95%)
MAC	/	1 (3%)
Stem cell source		
BM	5 (25%)	/
PBSC	15 (75%)	20 (100%)
Median follow up	23 months (range 5-73)	63 months (range 26-93)

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Haplo vs MRD/MUD

	MRD/UD	HAPLO
CI 100 day aGVHD grade 2-4 (95% CI)	45% (23-65)	35% (15- 56)
CI 2 years cGVHD (95% CI)	25% (9-45)	11% (2-30)
3 years OS (95% CI)	54% (30-73)	71% (43-77)
3 years PFS (95% CI)	54% (31-73)	73% (47-88)
3 years CRelapse (95% CI)	5% (0-21)	11% (2-29)
1 years GRFS (95% CI)	55% (31-76)	68% (42-84)
3 years NRM (95% CI)	41% (19-62)	16% (4-36)

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Conclusions

- Allo-SCT from haploidentical donor using PT Cy platform is active in patients with MCL.
- The NRM and GVHD incidence are low
- The relapse rate is low
- However, this is a retrospective analysis with few patients

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