

Poor prognosis of chromosome 7 clonal aberrations in Philadelphia-negative metaphases and relevance of potential underlying myelodysplastic features in chronic myeloid leukemia

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Received: October 8, 2018.

Accepted: December 18, 2018.

Pre-published: December 20, 2018.

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Table 1: Patients baseline characteristics

Parameters	-7/del(7q) CCA/Ph- (n=26)	other CCA/Ph- (n=76)	p-value	Test
Age at diagnosis (years)				
mean (sd)	48 (12)	55 (15)	0.035	Student t test
Sex, N (%)			0.103	Fisher's Exact Test
F	6 (23.1%)	32 (42.1%)		
M	20 (76.9%)	44 (57.9%)		
CML phase, N (%)			0.757	Fisher's Exact Test with simulated p-values
Chronic	25 (96.2%)	69 (90.8%)		
Accelerated	1 (3.8%)	6 (7.9%)		
ND	0 (0.0%)	1 (1.3%)		
Sokal, N (%)	(n=17)	(n=54)	0.325	Fisher's Exact Test with simulated p-values
Low	3 (17.6%)	12 (22.2%)		
Intermediate	4 (23.5%)	22 (40.7%)		
High	10 (58.8%)	20 (37.0%)		
CCA/Ph- emergence since TKI initiation (year)				
median (min;max)	2.08 (-0.08 ; 12.65)	1.02 (-3.32 ; 11.02)	0.118	Mann-Whitney test with continuity correction
CCA/Ph-, N (%)				
isolated -7	13 (50.0%)	0 (0.0%)		
associated -7	8 (30.8%)	0 (0.0%)		
other CCA/Ph-	1 (3.8%)	66 (86.8%)		
associated other CCA/Ph-	4 (15.4%)	10 (13.2%)		
del(7q) CCA/Ph-, N (%)				
isolated del(7q)	13 (50.0%)	0 (0.0%)		
associated del(7q)	13 (50.0%)	0 (0.0%)		
other CCA/Ph-	0 (0.0%)	66 (86.8%)		
associated CCA/Ph-	0 (0.0%)	10 (13.2%)		
Pretreatment before TKI, N (%)			0.502	Fisher's Exact Test
No	13 (50.0%)	44 (57.9%)		
Yes	13 (50.0%)	32 (42.1%)		
Type of pretreatment, N (%)	(n=13)	(n=33)	0.917	Fisher's Exact Test with simulated p-values
Cytarabine	0 (0.0%)	1 (3.0%)		

Hydroxyurea +Interferon	1 (7.7%)	2 (6.1%)	
Hydroxyurea	7 (53.8%)	18 (54.5%)	
Hydroxyurea+ Cytarabine	0 (0.0%)	1 (3.0%)	
Interferon	1 (7.7%)	5 (15.2%)	
Interferon+Cytarabine	4 (30.8%)	4 (12.1%)	
Hydrea+Interferon+Cytarabine	0 (0.0%)	1 (3.0%)	
Other	0 (0.0%)	1 (3.0%)	
Pretreatment response, N (%)	(n=10)	(n=21)	0.875 Fisher's Exact Test with simulated p-values
No response	4 (40.0%)	6 (28.6%)	
Complete haematologic response	6 (60.0%)	10 (47.6%)	
Complete cytogenetic response	0 (0.0%)	1 (4.8%)	
Partial cytogenetic response	0 (0.0%)	3 (14.3%)	
Complete molecular response	0 (0.0%)	1 (4.8%)	
Age at first TKI initiation (year)	(n=19)	(n=48)	
mean (sd)	51 (12)	54 (15)	0.542 Student t test
Time from diagnosis			
median (min;max)	0.06 (-0.73 ; 4.87)	0.07 (-0.06 ; 10.34)	0.817 Mann-Whitney test with continuity correction
First line of treatment, N (%)			0.027 Fisher's Exact Test with simulated p-values
Dasatinib	4 (15.4%)	4 (5.3%)	
Dasatinib + Interferon	0 (0.0%)	1 (1.3%)	
Imatinib	16 (61.5%)	65 (85.5%)	
Imatinib + Cytarabine	1 (3.8%)	1 (1.3%)	
Imatinib + Hydroxyurea	0 (0.0%)	1 (1.3%)	
Imatinib + Interferon	0 (0.0%)	1 (1.3%)	
Imatinib + Omacetaxine	1 (3.8%)	0 (0.0%)	
Nilotinib	4 (15.4%)	2 (2.6%)	
Nilotinib + Interferon	0 (0.0%)	1 (1.3%)	
Best response, N (%)			0.660 Fisher's Exact Test with simulated p-values
No response	1 (3.8%)	3 (3.9%)	
Complete haematologic response	8 (30.8%)	16 (21.1%)	
Partial cytogenetic response	7 (26.9%)	11 (14.5%)	
Complete cytogenetic response	3 (11.5%)	13 (17.1%)	
MMR	1 (3.8%)	8 (10.5%)	
RM4	2 (7.7%)	9 (11.8%)	

RM4.5	4 (15.4%)	16 (21.1%)	
Second line of treatment, N (%)			0.474 Fisher's Exact Test
No	7 (26.9%)	28 (36.8%)	
Yes	19 (73.1%)	48 (63.2%)	
2d therapy, N (%)	(n=19)	(n=48)	0.651 Fisher's Exact Test with simulated p-values
Dasatinib	10 (52.6%)	19 (39.6%)	
Omacetaxine + Cytarabine	1 (5.3%)	0 (0.0%)	
Hydroxyurea	0 (0.0%)	1 (2.1%)	
Imatinib	2 (10.5%)	5 (10.4%)	
Interferon + Hydroxyurea	0 (0.0%)	1 (2.1%)	
Nilotinib	6 (31.6%)	21 (43.8%)	
Omacetaxine	0 (0.0%)	1 (2.1%)	
Best response, N (%)	(n=18)	(n=47)	0.159 Fisher's Exact Test with simulated p-values
Complete haematologic response	3 (16.7%)	6 (12.8%)	
Partial cytogenetic response	7 (38.9%)	9 (19.1%)	
Complete cytogenetic response	4 (22.2%)	6 (12.8%)	
MMR	3 (16.7%)	8 (17.0%)	
RM4	0 (0.0%)	5 (10.6%)	
RM4.5	1 (5.6%)	13 (27.7%)	
Third line of treatment, N (%)			0.019 Fisher's Exact Test
No	12 (46.2%)	55 (72.4%)	
Yes	14 (53.8%)	21 (27.6%)	
3d TKI, N (%)	(n=14)	(n=21)	0.564 Fisher's Exact Test with simulated p-values
Bosutinib	1 (7.1%)	1 (4.8%)	
Dasatinib	2 (14.3%)	7 (33.3%)	
Imatinib	1 (7.1%)	2 (9.5%)	
Nilotinib	5 (35.7%)	7 (33.3%)	
Nilotinib+ Interferon	2 (14.3%)	0 (0.0%)	
Ponatinib	3 (21.4%)	3 (14.3%)	
5 AZA-Cytidine+ Dasatinib	0 (0.0%)	1 (4.8%)	
Best response, N (%)	(n=12)	(n=21)	0.815 Fisher's Exact Test with simulated p-values
No response	0 (0.0%)	1 (4.8%)	
Complete haematologic response	5 (41.7%)	6 (28.6%)	
Partial cytogenetic response	2 (16.7%)	7 (33.3%)	

Complete cytogenetic response	3 (25.0%)	4 (19.0%)		
MMR	2 (16.7%)	1 (4.8%)		
RM4	0 (0.0%)	1 (4.8%)		
RM4.5	0 (0.0%)	1 (4.8%)		
Fourth line of treatment, N (%)			0.735	Fisher's Exact Test with simulated p-values
No	22 (84.6%)	67 (88.2%)		
Yes	4 (15.4%)	9 (11.8%)		
4th TKI, N (%)	(n=4)	(n=9)	0.652	Fisher's Exact Test with simulated p-values
Dasatinib	1 (25.0%)	4 (44.4%)		
Imatinib, Interferon	1 (25.0%)	0 (0.0%)		
Nilotinib	0 (0.0%)	1 (11.1%)		
Ponatinib	2 (50.0%)	4 (44.4%)		
Best response, N (%)	(n=4)	(n=9)	0.262	Fisher's Exact Test with simulated p-values
Complete haematologic response	3 (75.0%)	1 (11.1%)		
Partial cytogenetic response	0 (0.0%)	3 (33.3%)		
Complete cytogenetic response	0 (0.0%)	2 (22.2%)		
MMR	1 (25.0%)	1 (11.1%)		
RM4	0 (0.0%)	1 (11.1%)		
RM4.5	0 (0.0%)	1 (11.1%)		
Fifth line of treatment, N (%)			0.600	Fisher's Exact Test with simulated p-values
No	24 (92.3%)	73 (96.1%)		
Yes	2 (7.7%)	3 (3.9%)		
5th TKI, N (%)	(n=2)	(n=3)	1.000	Fisher's Exact Test with simulated p-values
Bosutinib	1 (50.0%)	1 (33.3%)		
Dasatinib	0 (0.0%)	1 (33.3%)		
Nilotinib	1 (50.0%)	0 (0.0%)		
Ponatinib	0 (0.0%)	1 (33.3%)		
Best response, N (%)	(n=2)	(n=3)	0.406	Fisher's Exact Test with simulated p-values
No response	1 (50.0%)	0 (0.0%)		
Complete haematologic response	0 (0.0%)	2 (66.7%)		
Complete cytogenetic response	0 (0.0%)	1 (33.3%)		
MMR	1 (50.0%)	0 (0.0%)		
Outcome, N (%)			0.251	Fisher's Exact Test with simulated p-values
Alive	19 (73.1%)	43 (56.6%)		

Death	2 (7.7%)	5 (6.6%)	
RM4.5	5 (19.2%)	28 (36.8%)	
Disease progression, N (%)			0.177 Fisher's Exact Test with simulated p-values
No	21 (80.8%)	69 (90.8%)	
Yes	5 (19.2%)	7 (9.2%)	
Follow-up since first TKI initiation (years)			
median (min;max)	5.53 (1.3 ; 14.58)	7.41 (0.44 ; 15.92)	0.485 Mann-Whitney test with continuity correction
Time delay until RM4.5 after first TKI initiation (years)	(n=5)	(n=28)	
median (min;max)	2.3 (0.66 ; 10.5)	3.55 (0.5 ; 11.77)	0.361 Exact Mann-Whitney test