

High-risk additional cytogenetic aberrations in a Dutch chronic phase chronic myeloid leukemia patient population

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SUPPLEMENTAL CONTENT*Appendix 1***List of High-Risk Additional Cytogenetic Aberrations (+8, i(17q), +Ph, +19, +21, 3q26.2, -7/7q-, 11q23.2 and complex karyotype; present in Philadelphia chromosome-positive cells)**

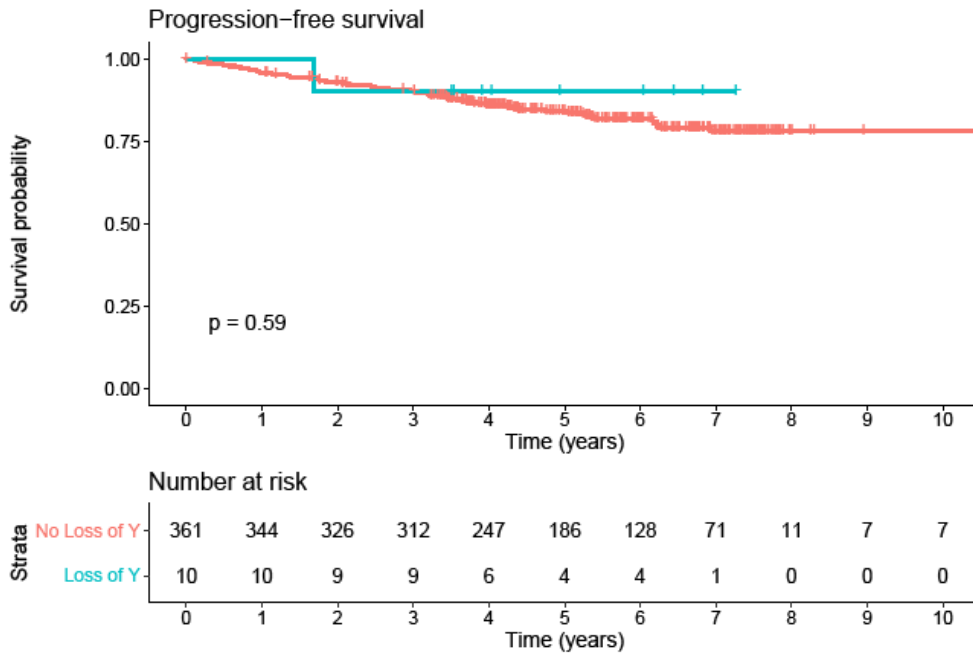
Subject 8	46,XY,t(9;22)(q34;q11)[17]/47,XY,t(9;22)(q34;q11),+der(22)t(9;22)(q34;q11)[2]
Subject 124	46,XX,t(9;22)(q34;q11)[13]/50,XX,+8,+10,+19,+der(22)t(9;22)(q34;q11)[3]
Subject 151	48,XX,+8,t(9;22)(q34;q11),+der(22)t(9;22)(q34;q11)[15]
Subject 210	46,XX,t(9;22)(q34;q11)[12]/47,XX,t(9;22)(q34;q11),+der(22)t(9;22)(q34;q11)[8]
Subject 254	47,XY,t(9;22)(q34;q11),+der(22)t(9;22)(q34;q11)[10]
Subject 272	46,XY,t(9;22)(q34;q11)[19]/47,XY,+8,t(9;22)(q34;q11)[1]
Subject 280	47,XY,+8,t(9;22)(q34;q11)[20]
Subject 281	46,XY,t(9;22)(q34;q11)[15]/48,XY,t(9;22)(q34;q11),+12,+21[1]
Subject 293	46,XY,t(9;22)(q34;q11)[19]/45,XY,-7,t(9;22)(q34;q11)[3]
Subject 324	46,XY,t(9;22)(q34;q11)[11]/45,X,-Y,inv(3)(q21q26),t(9;22)(q34;q11)[9]
Subject 326	46,XX,t(9;22)(q34;q11)[7]/48,XX,+8,t(9;22)(q34;q11),+19[13]
Subject 368	Double Ph (exact karyotype unknown)
Subject 382	47,XY,+8,t(9;22)(q34;q11)[20]
Subject 402	46,XY,t(3;7)(q?27;p?12),t(9;22)(q34;q11)[20]
Subject 441	46,XY,t(9;22)(q34;q11)[1]/45,X,-Y,t(9;22)(q34;q11)[15]/47,XY,+8,t(9;22)(q34;q11)[6]

List of Low-Risk Additional Cytogenetic Aberrations (all other aberrations; present in Philadelphia chromosome-positive cells)

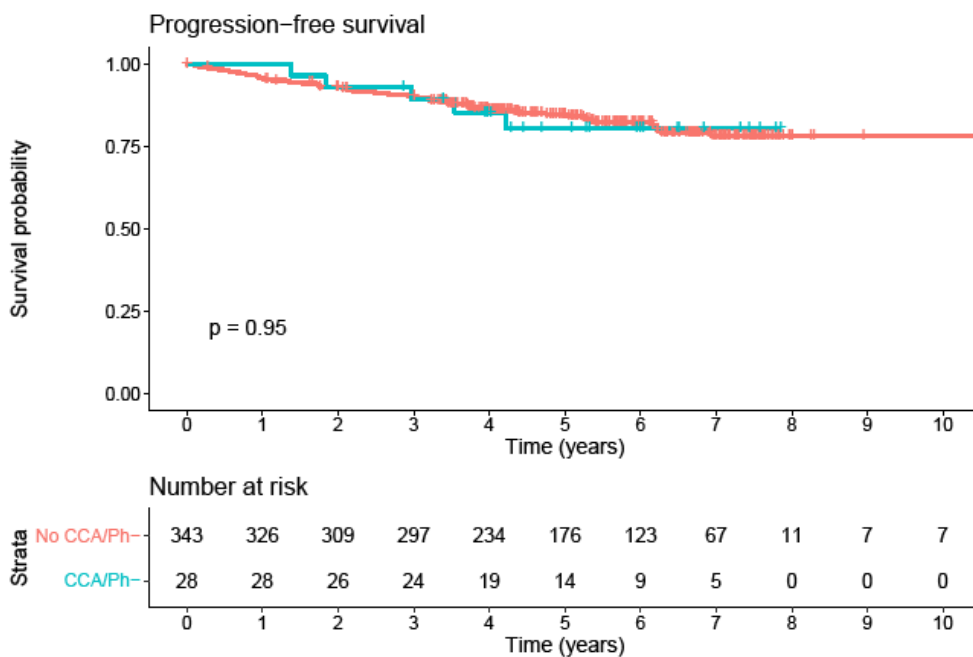
Subject 28	46,XY,t(9;22)(q34;q11)[17]/46,XY,t(9;22)(q34;q11),add(19)(p?)[3]
Subject 29	46,XY,ins(10;9)(q22;q34q22)t(9;22)(q34;q11),der(22)t(9;22)(q34;q11)[20]
Subject 76	46,XX,inv(2)(p23q11.2)?c,t(9;22)(q34;q11)[20]
Subject 102	46,XY,t(8;8)(?;?),t(9;22)(q34;q11)[20]
Subject 103	45,XY,-4,t(9;22)(q34;q11)[20]
Subject 114	47,XY,+X,t(9;22)(q34;q11)[20]
Subject 157	46,XY,t(9;22)(q34;q11)[17]/45,XY,t(9;22)(q34;q11),-21[3]
Subject 190	46,XX,t(9;22)(q34;q11),t(11;12)(q13;p13)[10]
Subject 196	46,XY,t(9;22;14)(q34;q11;q22),der(14)t(14;16)(q22;q12),der(16)t(14;16)(q22;q12)del(14)(q22q31)[15]
Subject 253	45,XX,del(5)(q13q22),t(9;22)(q34;q11)[17]/46,XX[3]
Subject 286	46,XY,der(9)t(9;22)(q34;q11),der(15)t(9;15)(q34;q22),der(22)t(9;22)(q34;q11)t(9;15)(q34;q22)[20]
Subject 395	46,XY,t(9;22)(q34;q11)[15]/45,XY,t(9;22)(q34;q11),-21[5]
Subject 406	46,XY,t(8;17)(q2?3;q2?3),t(9;22)(q34;q11)[18]
Subject 456	46,XX,der(9)inv(9)(q32q34)t(9;22)(q34q11.2),der(22)t(9;22)[11]
Subject 459	46,XY,t(3;7)(p13;p13),t(9;22)(q34;q11)[10]

Supplemental Figure 1: Progression-free survival Kaplan-Meier estimates. (A) Patients with a solitary Loss of Y chromosomal aberration (in Philadelphia-positive cells) compared to patients without additional chromosomal aberrations. (B) Patients with clonal chromosomal aberrations in Philadelphia-negative cells compared to patients without chromosomal aberrations. Three patients with clonal aberrations in both Philadelphia-positive and Philadelphia-negative cells were excluded from this survival analysis.

A



B



Supplemental Table 1: cox proportional hazard regression analysis assessing the predictive effect of variables for progression-free survival. HR = hazard ratio; PFS = progression-free survival; HR-ACA = high-risk additional cytogenetic aberrations; ELTS = EUTOS Long-Term Survival; num = numeric; TKI = tyrosine kinase inhibitor; 2GTKI = second generation tyrosine kinase inhibitors.

Covariate	Level	HR for PFS	95% CI	p
Univariable analysis				
HR-ACA	No	Reference	Reference	
	Yes	2.81	1.22-6.49	0.015
ELTS	Low	Reference	Reference	
	Int/high	2.29	1.32-4.00	0.003
ELTS (num)	NA	2.09	1.39-3.15	<0.001
Age	NA	1.06	1.04-1.08	<0.001
Gender	Male	Reference	Reference	
	Female	1.06	0.67-1.68	0.807
First line TKI	Imatinib	Reference	Reference	
	2GTKI	0.78	0.43-1.42	0.417
Multivariable analysis				
HR-ACA	No	Reference	Reference	
	Yes	3.13	1.34-7.31	0.008
ELTS (num)	NA	2.06	1.37-3.11	<0.001