

An important oversight in the World Health Organization diagnostic classification: chronic myeloid leukemia with the *PML::RARA* fusion clone

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Supplementary Table1: Summary of CML patients with PML::RARA fusion gene.

case	Age (y*)	sex	Fusion gene (First visit)	Fusion gene quantification		Interval between CML diagnosis and blast crisis (months)	Mutations in ABL kinase region	Treatment before PBP	WBC count of PBC ×10 ⁹ /L	Treatment during PBP	Sensitive to ARTA or ATO	Other gene mutations	Survival # /Outcome	Reference
				First visit	blast crisis									
1	22	M	BCR/ABL, PML/RARA	ND	ND	concurrent	ND	ND	ND	ATRA, chemotherapy, allogeneic SCT	ND	ND	118 days	2
2	3	M	BCR/ABL	ND	ND	42	ND	Busulfan, alpha-2a interferon, hydroxyurea, cytarabine	80	Chemotherapy	ND	ND	2 months	2
3	60	M	BCR/ABL	ND	ND	36	ND	ND	80	Cytarabine, mitoxantrone, etoposide, idarubicine, 6-thioguanine	ND	ND	3 weeks	2
4	52	F	BCR/ABL	ND	ND	36	ND	hydroxyurea	183	Mitoxantrone, etoposide	ND	ND	6 weeks	2
5	55	M	BCR/ABL	ND	ND	24	ND	hydroxyurea	681	ATRA, mitoxantrone, cytosine arabinoside, etoposide	ND	ND	ND	2
6	50	M	BCR/ABL	ND	ND	36	ND	ND	2.4	ND	ND	ND	ND	2
7	32	F	BCR/ABL	ND	ND	96	ND	Busulfan	ND	Doxorubicin	ND	ND	1 months	2

8	82	F	BCR/ABL	ND	BCR/ABL:0.6% PML/RARA: ND	24	ND	Imatinib	0.56	ND	ND	ND	ND	2
9	26	M	BCR/ABL	ND	ND	concurrent	ND	NA	63	Cytarabine, arabinoside, daunorubicin, dasatinib, allogeneic SCT	ND	ND	ND	2
10	38	M	BCR/ABL	ND	ND	25	ND	Allopurinol, busulfan	ND	ND	ND	ND	47 days	2
11	48	M	BCR/ABL	ND	ND	72	ND	ND	ND	ATRA	ND	ND	>87 days	2
12	27	M	BCR/ABL	ND	ND	48	ND	Natural interferon-α	ND	ND	ND	ND	ND	2
13	85	F	BCR/ABL	ND	ND	10	ND	ND	37	ND	ND	ND	2 days	2
14	38	M	BCR/ABL	ND	ND	23	ND	ND	120	Chemotherapy	ND	ND	34 months	3
15	51	M	BCR/ABL	ND	ND	20	ND	ND	160	Chemotherapy	ND	ND	31 months	3
16	58	F	BCR/ABL	ND	ND	71	ND	ND	105	Chemotherapy	ND	ND	85 months	3
17	31	M	BCR/ABL	ND	ND	27	ND	Cytosine arabinoside, 6-thioguanine	ND	ND	ND	ND	3 months	2
18	30	M	BCR/ABL	ND	ND	10	ND	Busulfan	18	N ⁴ -Behenoyl-1-β- Darabinofuranosyl- cytosine, daunorubicin, 6-mercaptopurine, prednisone	ND	ND	5 months	2

19	38	M	BCR/ABL	ND	ND	25	ND	ND	32.9	AziridinyI-benzoquinone	ND	ND	1 month	2
20	61	M	BCR/ABL	ND	ND	30	ND	Busulfan	21	Busulphan and hydroxyurea	ND	ND	6 days	4
21	37	M	BCR/ABL	ND	ND	10	ND	Misulban	218	Daunorubicin, cytosine arabinoside	ND	ND	ND	2
22	15	M	BCR/ABL	ND	ND	9	ND	Busulfan	134	6-thioguanine	ND	ND	10 days	5
23	66	F	BCR/ABL	ND	ND	9	ND	Imatinib	0.3	IA, ATRA	ND	ND	>24 months	6
24	58	M	BCR/ABL	ND	ND	24	ND	Bosutinib	ND	ATRA, ATO, gemtuzumab	ND	ASXL1, IKZF1, WT1	>1 months	7
25	40	M	BCR/ABL, PML/RARA	BCR/ABL: 93.869% PML/RARA: ND	BCR/ABL:49.667% PML/RARA:29.09%	17	ND	Imatinib	2	ATRA, ATO, dasatinib	ND	ND	>26 months	2
26	78	M	BCR/ABL	ND	BCR/ABL:48.25% PML/RARA:46.44%	84	ND	Dasatinib	1.03	ATRA, ATO	ND	ASXL1	2 months	2
27	32	M	BCR/ABL, PML/RARA	BCR/ABL: 1.59% PML/RARA: 0.0321%	BCR/ABL:2.21% PML/RARA:0.81%	6	ND	Imatinib	4.9	Imatinib, ATRA	ND	ND	ND	2
28	31	M	BCR/ABL	ND	BCR/ABL:88.36% PML/RARA:25.4%	4	ND	Hydroxycarbamide, imatinib	1.23	ATRA, ATO, dasatinib, idarubicin, cytarabine, allogeneic SCT	ND	ND	>20 months	2

29	69	F	BCR/ABL	ND	ND	13	ND	Imatinib	1.1	ATRA, idarubicin, Ara-C, imatinib, ATO	ND	ND	> 12 months	2
30	27	M	BCR/ABL, PML/RARA	BCR/ABL: 26% PML/RARA: 5%	BCR/ABL: ND PML/RARA:51.92%	0.6	ND	Imatinib	30.79	ATRA, ATO, Imatinib	ND	ND	ND	8
31	72	F	BCR/ABL	ND	BCR/ABL:99.73% PML/RARA:13.28%	ND	ND	Imatinib	17.8	ATRA and ATO	ND	ND	2 months	6
32	35	M	BCR/ABL	BCR/ABL: 30.02%	BCR/ABL:53.22% PML/RARA: ND	26	ND	Dasatinib	45.67	Idarubicin, ATRA, dasatinib, allo-HSCT	ND	ND	ND	6
33	58	F	BCR/ABL, PML/RARA	BCR/ABL: 31% PML/RARA: 0.3%	BCR/ABL: 94% PML/RARA:76%	concurrent	Y2253H, F359G, and T315I	Nilotinib	155.79	IA, ATRA, ATO, ponatinib	ND	CBL, CUX1, BCOR	56 months	This case

PBP, promyelocytic blast phase. PBC, promyelocytic blastic crisis. ND, no data. ATRA, all-trans retinoic acid. ATO, arsenic trioxide. HSCT, hematopoietic stem-cell transplantation. F, female. M, male, y*, years. #, represents survival (after blast Crisis onset).