

Azacitidine as post-remission consolidation for sorafenib-induced remission of Fms-like tyrosine kinase-3 internal tandem duplication positive acute myeloid leukemia

Harinder Gill,^{1} Cheuk-Him Man,^{1*} Alvin H.W. Ip,² William W.L. Choi,² Howard C.H. Chow,¹ Yok-Lam Kwong,¹ and Anskar Y.H. Leung¹*

¹Division of Haematology, Medical Oncology and Bone Marrow Transplantation, Department of Medicine, the University of Hong Kong; and ²Department of Pathology, the University of Hong Kong, China.

Table S1. Clinicopathologic features and outcome of 9 patients with FLT3-ITD+ acute myeloid leukemia who underwent consolidation with sorafenib plus azacitidine

Clinicopathologic feature	Value
Median age, years (range)	63 (25-74)
Sex, number	
Male/Female	5/4
Median hemoglobin, g/dL (range)	10.8 (6-12)
Median white blood cell count, $\times 10^9$ (range)	11.1 (1-103)
Median platelet count, $\times 10^9$ (range)	117 (20-418)
Median PB blast percentage (range)	15.5 (0-69)
Median BM blast percentage (range)	75 (23-81)
AML morphology, number	
AML with maturation	1
Acute myelomonocytic leukemia	1
Acute monocytic leukemia	1
Acute erythroleukemia (erythroid/myeloid)	1
AML with MDS-related changes*	5
Karyotype at diagnosis, number	
Normal	7
+1, der(1;21)(q10;q10)	1
-16	1
Clinical status before starting Sorafenib	
R1	4
R2	1
Refractory state	1
At diagnosis of AML	3
Best BM response after Sorafenib treatment	
CR	3
CRi	6
Median time to best BM response, days (range)	25 (19 - 91)
Median follow-up after start of sorafenib, days (range)	186 (61-630)
Median progression-free survival, days (95% confidence interval)	116 (16.7-215.3)
Median overall survival, days (95% confidence interval)	186 (165.5-206.5)

* 4 patients had underlying MDS and transformed into FLT3-ITD⁺ AML. At diagnosis of MDS, FLT3 was wildtype. PB: peripheral blood; BM: bone marrow;

R1: first relapse; R2: second relapse; CR: complete remission; CRi: complete remission with insufficient hematopoietic recovery

Table S2. Comparison of clinicopathologic features and treatment outcome of patients with FLT3-ITD+ AML given sorafenib monotherapy versus sorafenib plus azacitidine as consolidation

Clinicopathologic feature	Sorafenib monotherapy	Sorafenib plus azacitidine	P-value
Number	13	9	-
Median age, years (range)	49 (5 – 69)	63 (25 – 74)	0.16
Gender, number			0.43
Male	5	5	
Female	8	4	
Median hemoglobin, g/dL	8.1 (6 - 11)	10.8 (6 - 12)	0.04
Median white blood cell count, $\times 10^9$ (range)	79.1(12 - 254)	11.1 (1 - 103)	0.02
Median platelet count, $\times 10^9$ (range)	76 (18 – 299)	117 (20 – 418)	0.49
Median PB blast percentage (range)	63.5 (27 – 96)	15.5 (0 – 69)	0.004
Median BM blast percentage	80 (46 – 94)	75 (23 - 81)	0.02
Best BM response after Sorafenib treatment, number			0.04
CR	0	3	
CRi	10	6	
nCRi	3	0	
Median time to best BM	23 (19 – 84)	26 (21 – 91)	0.57
Median duration of follow-up,	182 (60-300)	186 (61-630)	0.62
Median progression-free survival, days (95% confidence interval)	65 (32.4 – 97.6)	116 (16.7 – 215.3)	0.03
Median overall survival, days (95% confidence interval)	182 (70.4 – 293.6)	186 (165.5 – 206.5)	0.65

PB: peripheral blood; BM: bone marrow; NPM1: nucleophosmin 1; CR: complete remission; CRi: complete remission with insufficient hematopoietic recovery; nCRi: near CRi; HDAC: high-dose cytarabine