

Changes in magnetic resonance bone marrow angiogenesis on day 7 after induction chemotherapy can predict outcome of acute myeloid leukemia

Hsin-An Hou,¹ Tiffany Ting-Fang Shih,² Chieh-Yu Liu,³ Bang-Bin Chen,² Jih-Luh Tang,¹ Ming Yao,¹ Shang-Yi Huang,¹ Wen-Chien Chou,⁴ Chao-Yu Hsu,² and Hwei-Fang Tien¹

¹Department of Internal Medicine, National Taiwan University Hospital and College of Medicine; ²Department of Medical Imaging and Radiology, National Taiwan University Hospital and College of Medicine; ³Biostatistics Consulting Laboratory, Department of Nursing, National Taipei College of Nursing, and ⁴Department of Laboratory Medicine, National Taiwan University Hospital and College of Medicine, Taipei, Taiwan

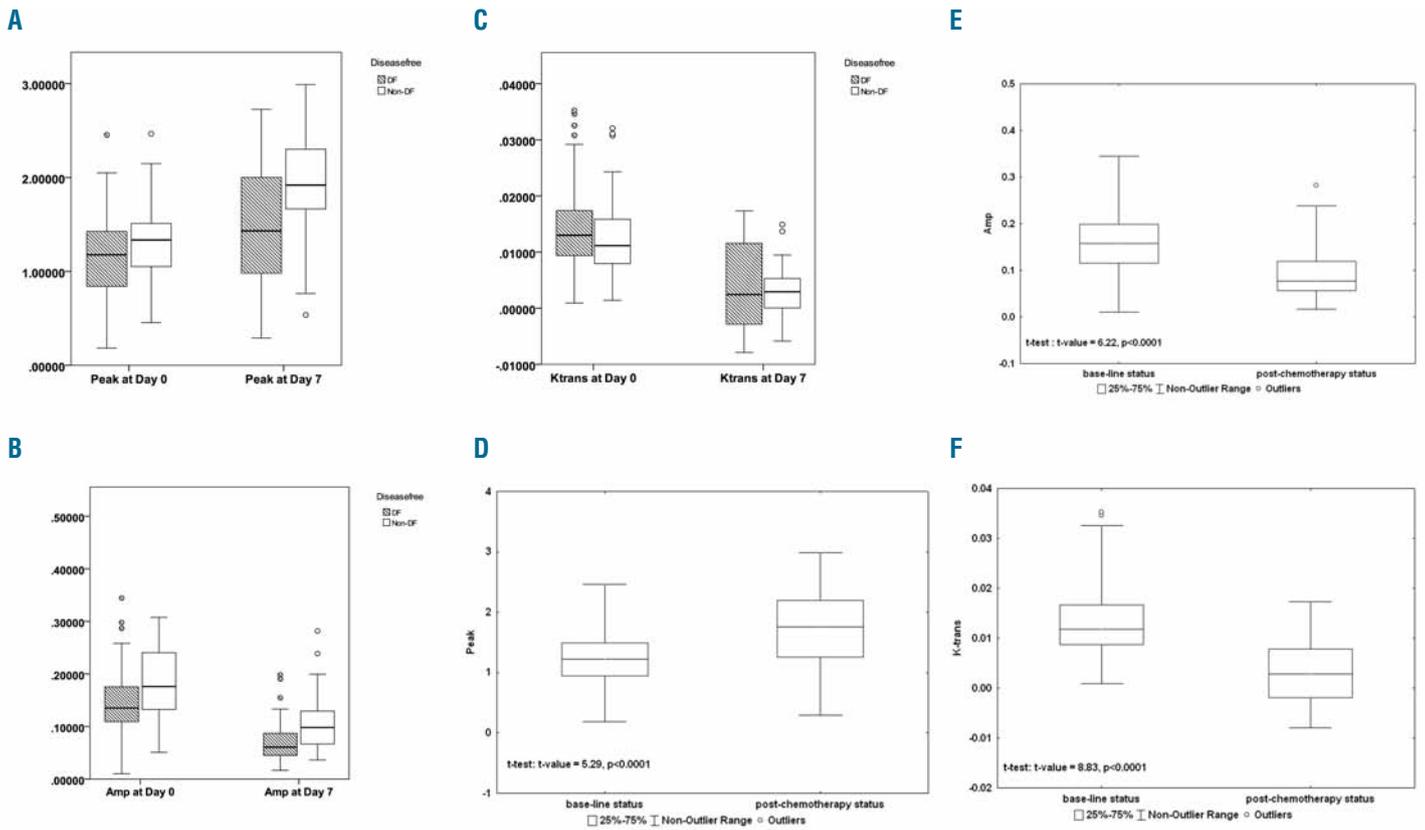
Citation: Hou H-A, Ting-Fang Shih T, Liu C-Y, Chen B-B, Jih-Tang L, Yao M, Huang S-Y, Chou W-C, Hsu C-Y and Tien H-F. Changes in magnetic resonance bone marrow angiogenesis on day 7 after induction chemotherapy can predict outcome of acute myeloid leukemia. *Haematologica* 2010;95(8):1420-1424. doi:10.3324/haematol.2009.019364

Online Supplementary Table S1. Correlation of clinical variables and bone marrow angiogenesis on day 7 with disease free status

	Disease free (n=41) [†]	Not disease free (n=39) [†]	P
Peak*	1.71088 (0.40934-3.09581)	2.20862 (0.58831-3.21301)	0.002
Amp*	0.06076 (0.01676-0.21274)	0.098261 (0.03623-0.43505)	0.009
K trans*	0.000974 (-0.00004-0.00229)	0.000965 (0.00023-0.00176)	0.7038
LDH (U/L)*	507 (244-6378)	503 (256-2196)	0.7554
WBC (k/ μ L)*	0.57 (0.1-2.76)	0.5 (0.07-2.8)	0.11
Blast (k/ μ L)*	0 (0-0.0516)	0 (0-1.2432)	0.4942
Hb (g/dL)*	8.4 (6.5-11.0)	8.3 (6.1-10.2)	0.2285
PLT (K/ μ L)*	26 (5-104)	29 (2-242)	0.758
Follow-up duration (M)	18.3	17.8	0.6432
Age*	49 (17-74)	48 (18-76)	0.9004
Sex			0.6624
Male	21	18	
Female	20	21	
Karyotype [‡]			0.4784
Favorable	8	7	
Intermediate	28	25	
Unfavorable	3	7	

[†]Disease-free, the patients achieved CR and had not relapsed by the end of this study; not disease-free, the patients did not achieve CR either because of primary refractory or induction death after induction chemotherapy or those who relapsed after first complete remission. The data of LDH, WBC, Hb and PLT were values on day 7 post-chemotherapy *median (range)

[‡]Chromosome data were not available in 2 patients with disease free status. Favorable, t(15;17), t(8;21), inv (16) ; unfavorable, -7, del(7q), -5, del(5q), 3q abnormality, complex abnormalities; Intermediate, normal karyotype and other abnormalities.



Online Supplementary Figure S1. Comparison of *Peak*, *Amp* and *K trans* before and after chemotherapy for disease free and non-disease free groups by box plot demonstration. MR angiogenesis parameters *Peak* and *Amp* on day 7 were significantly lower in those patients with disease free status as compared with those without ($P=0.002$ and 0.009 , respectively, (A and B)). However, there was no difference for *K trans* (C). As a whole, MR angiogenesis parameters *Amp* and *K trans* on day 7 were significantly reduced compared with those in the initial DCE-MRI (both $P<0.0001$, (E and F)). However, *Peak* became more diverse in distribution and showed an overall increase on day 7 ($P<0.0001$, (D)).