

Appendix 1. Demographic and Clinical Characteristics of Control and AML Group

Variable	Value	
	Control (n=15)	AML (n=12)
Age, years	56 (43-79)	55 (24-79)
Sex, n (%)		
Male	8 (53 %)	6 (50 %)
Female	7 (47 %)	6 (50 %)
FCM Report (%)		
CD 45	-	96.7 (99.5-85.1)
CD 34	1.5 (1-3)	44.6 (2.1-90.8)
CD 117	2.5 (2-3)	41.7 (10.1-89.6)
CD 13	-	46.1 (7.5-93.7)
CD 33	66 (60-72)	71.2 (45.8-92.8)
Cells with Abnormal Phenotype	-	62.3 (25-90)
Hematologic Parameters		
WBC Count ($\times 10^9/L$)	6.6 (5.3-9.5)	15.8 (2.7-65.9)
Hemoglobin (g/dL)	13.5 (10.8-14.5)	7.45 (5.1-9.5)
Platelet Count ($\times 10^9/L$)	182 (88-276)	36 (15.61)
Reason for BM Aspiration		
Anemia Workup	3 (20 %)	-----
Thrombocytopenia	7 (47 %)	-----
Other Benign Conditions	5 (33 %)	-----
FAB Classification		
M0/M1	-----	2 (17%)
M2	-----	4 (33%)
M4	-----	4 (33%)
M5	-----	2 (17%)

Appendix 2. Primer Sequences and Amplicon Sizes for Target and Reference Genes

Gene	Primer Sequence (5' → 3')	Product Size (bp)	Annealing Temperature (°C)
KMT2A	Forward: GTTTCCCATTTGCGGACCAGT	153	61
	Reverse: AGGTTGCCCACACTCCTTCTG		
HOXA9	Forward: CAATAACCCAGCAGCCAACT	85	60
	Reverse: CAGTTCCAGGGTCTGGTGTT		
MEIS1	Forward: ATGACACGGCATCTACTCGTTC	105	61
	Reverse: TGTCCAAGCCATCACCTTGCT		
PRDM-16	Forward: GAAGGGCAAGGAGCGATACA	199	62
	Reverse: GTGGCACTTGAAAGGCTTCTC		
GAPDH	Forward: ATGGGGAAGGTGAAGGTCG	70	60
	Reverse: TAAAAGCAGCCCTGGTGACC		

Appendix 3. Association between gene expression and patients 'characteristics

Variable	KMT2A			HOXA9			MEIS1			PRDM16		
	Low (n=10)	High (n=5)	P-value (test statistic)	Low (n=8)	High (n=7)	P-value (test statistic)	Low (n=10)	High (n=5)	P-value (test statistic)	Low (n=11)	High (n=4)	P-value (test statistic)
Age	40.90	35.40	0.468 (0.752)	35.50	43.14	0.277 (-1.135)	42.90	31.40	0.112 (0.092)	39.91	36.75	0.696 (0.399)
Sex												
Male	5 (50%)	2 (40%)	1 (0.134)	3 (37.5%)	4 (57.1%)	0.619 (0.579)	4 (40%)	3 (60%)	0.536 (0.608)	6 (54.5%)	1 (25%)	0.569 (1.029)
Female	5 (50%)	3 (60%)		5 (62.5%)	3 (42.3%)		6 (60%)	2 (40%)		5 (45.5%)	3 (75%)	
FAB												
M1	3 (30%)	1 (25%)	0.769 (525)	2 (28.6%)	2 (28.6%)	0.165 (3.600)	2 (20%)	2 (40%)	0.627 (0.933)	3 (30%)	1 (25%)	0.769 (0.525)
M2	4 (40%)	1 (25%)		1 (14.3%)	4 (57.1%)		4 (40%)	1 (20%)		3 (30%)	2 (50%)	
M4/M5	3 (30%)	2 (50%)		4 (57.1%)	1 (14.3%)		3 (30%)	2 (40%)		4 (40%)	1 (25%)	
FLT3-ITD												
Wild	7 (77.8%)	2 (50%)	0.317 (1.003)	3 (50%)	6 (85.7%)	0.266 (1.935)	6 (75%)	3 (60%)	0.569 (0.325)	7 (77.8%)	2 (50%)	0.530 (1.003)
Mutant	2 (22.2%)	2 (50%)		3 (50%)	1 (14.3%)		2 (25%)	2 (40%)		2 (22.2%)	2 (50%)	
Karyotype												
Normal	4 (40%)	2 (40%)	0.638 (0.900)	3 (37.5%)	3 (42.8%)	0.566 (1.138)	4 (40%)	2 (40%)	0.894 (0.225)	4 (36.4%)	2 (50%)	0.464 (1.534)
Abnormal	2 (20%)	2 (40%)		3 (37.5%)	1 (14.4%)		3 (30%)	1 (20%)		3 (27.2%)	1 (25%)	
Unknown	4 (40%)	1 (20%)		2 (25%)	3 (42.8%)		3 (30%)	2 (40%)		4 (36.4%)	1 (25%)	
Translocation												
Absent	5 (71.4%)	2 (50%)	0.576 (0.505)	4 (57.1%)	3 (75%)	1.000 (0.351)	4 (57.1%)	3 (75%)	1.000 (0.351)	5 (71.4%)	2 (50%)	0.576 (0.505)
Present	2 (28.6%)	2 (50%)		3 (42.9%)	1 (25%)		3 (42.9%)	1 (25%)		2 (28.6%)	2 (50%)	
Cytogenetic Risk												
Intermediate	8 (80%)	3 (60%)	0.409 (0.682)	5 (62.5%)	6 (85.7%)	0.569 (1.029)	7 (70%)	4 (80%)	1.000 (0.170)	9 (81.8%)	2 (50%)	0.218 (1.519)
Adverse	2 (20%)	2 (40%)		3 (37.5%)	1 (14.3%)		3 (30%)	1 (20%)		2 (18.2%)	2 (50%)	
Laboratory data												
WBC (×10 ⁹ /L)	7.18	8.8	0.396 (-0.878)	9.1	6.15	0.090 (1.831)	7.87	7.42	0.8160 (0.237)	7.19	9.17	0.327 (-1.018)
Hb (×g/L)	12.52	11.18	0.123 (1.650)	11.67	12.52	0.3110 (-1.054)	11.77	12.68	0.3070 (-1.062)	12.04	12.15	0.914 (-0.110)
Plt (×10 ⁹ /L)	191	223	0.447 (-0.784)	215	186	0.482 (0.724)	200	205	0.919 (-0.103)	176	273	0.019 (-2.675)
Relapse												
Non-Relapse	6 (60%)	4 (80%)	0.600 (0.600)	7 (87.5%)	3 (42.8%)	0.119 (3.348)	6 (60%)	4 (80%)	0.600 (0.600)	7 (63.6%)	3 (75%)	1 (0.170)
Relapse	4 (40%)	1 (20%)		1 (12.5%)	4 (57.2%)		4 (40%)	1 (20%)		4 (36.4%)	1 (25%)	
Transplant												
Allogenic	8 (80%)	4 (80%)	1 (0.000)	6 (75%)	6 (85.7%)	1 (0.268)	8 (80%)	4 (80%)	1 (0.00)	9 (81.8%)	3 (75%)	1 (0.085)
Haplotype	2 (20%)	1 (20%)		2 (25%)	1 (14.3%)		2 (20%)	1 (20%)		2 (18.2%)	1 (25%)	

Graft CD34+ (×10 ⁶ /Kg)	8.14	8.94	0.606 (-0.529)	8.41	8.40	0.993 (0.009)	8.32	8.58	0.867 (-0.170)	7.53	10.80	0.032 (-2.407)
---------------------------------------	------	------	-------------------	------	------	------------------	------	------	-------------------	------	-------	-------------------

