

Cytokine signature profiles in acquired aplastic anemia and myelodysplastic syndromes

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Online Supplementary Table S1. Characteristics of patients and healthy controls.

	SAA	HC1 (< 55 yrs)	HC2 (≥ 55 yrs)	All MDS	Hypocellular MDS
Total number	33	29	19	57	14
Mean age ± SD	32.6 ± 20.8	39.3 ± 9.1	64.5 ± 7.5	67.9 ± 11.2	64.4 ± 10.0
Age range	5 ~ 80	23 ~ 54	55 ~ 73	42 ~ 86	43 ~ 73
Male (%)	19 (58)	13 (45)	10 (53)	38 (67)	9 (64)
Female (%)	14 (42)	16 (55)	9 (47)	19 (33)	5 (36)
Median blood counts per µL (25-75 IQ)					
ANC	492 (180 ~ 669)	3680 (2990 ~ 4830)	2860 (2520 ~ 3110)	1305 (845 ~ 2500)	980 (645 ~ 2570)
ARC	25150 (11150 ~ 44650)	-	-	52000 (30000 ~ 89000)	48000 (17000 ~ 79000)
Platelet	15000 (10000 ~ 25000)	243000 (203000 ~ 294000)	206000 (178000 ~ 239000)	85500 (31500 ~ 197000)	59500 (19000 ~ 131000)
AMC	135 (68 ~ 203)	-	-	285 (110 ~ 480)	160 (60 ~ 385)
ALC	1410 (787 ~ 1607)	1090 (830 ~ 1170)	1350 (870 ~ 1630)	1225 (715 ~ 1640)	890 (605 ~ 1235)

* SAA, severe aplastic anemia; MDS, myelodysplasia; HC, healthy controls; SD, standard deviation; ANC, absolute neutrophil count; ARC, absolute reticulocyte count; AMC, absolute monocyte count; ALC, absolute lymphocyte count; 25-75 IQ, 25-75 interquartile range. * MDS patients included the following subtypes: 8 (14%) refractory anemia (RA), 11 (19%) refractory anemia with ringed sideroblasts (RA-RS), 10 (18%) refractory cytopenia with multilineage dysplasia (RCMD), 14 (25%) refractory anemia with excess blasts (RAEB), 11 (19%) myelodysplasia unclassified (MDS-U) and 3 (5%) 5q-, based on the WHO classification system. The blood counts among the MDS subtypes were comparable with the exception in RCMD and RAEB patients who had lower platelet counts than did the RA-RS patients ($P < 0.01$). RCMD patients also had lower neutrophil counts than were present in RA-RS patients ($P < 0.05$). Seventy-two percent of patients had < 5% BM blasts whereas 28% had > 5% BM blasts according to IPSS scoring. Low-risk MDS patients had higher platelet counts than did high-risk MDS ($P = 0.0009$), but other cell types were comparable. Among the 57 MDS patients, marrow was hypocellular in 14 (25%), normocellular in 12 (21%) and hypercellular in 31 (54%).

Online Supplementary Figure S1. Variations of cytokines in MDS. (A) Comparison of cytokines among MDS WHO subtypes (Kruskal-Wallis). (B) Comparison of cytokines between low risk (n=41) and high risk (n=16) MDS (Mann-Whitney U test). (C) Comparison of cytokines among hypocellular (n=14), normocellular (n=12), and hypercellular (n=31) MDS (Kruskal-Wallis). Only cytokines where differences were observed are shown. The bars represent median values. *** $P < 0.001$; ** $P < 0.01$; * $P < 0.05$.

