## **Additional results**

We also performed *t*-tests to compare the differences in the 2 miRNA levels according to OS or PFS. Using the median OS to divide the patients, the *P* values of let-7a and miR-16 levels were 0.043 and 0.031, respectively. Using the median PFS to divide the patients, the *P* values of let-7a and miR-16 levels were 0.043 and 0.052, respectively.

Table S1. Patients with high level of each individual microRNAs or both show no significant difference in survival.

	Let-7a high and miR-16 high	Let-7a high and miR-16 low (n=4) or miR-16 high and let-7a low (n=3)	P
Number of patients, n	8	7	
Median OS, month	8	14	.583
Median PFS, month	12	12	.649

Table S2. Multivariate Cox analysis of the International Prognostic Scoring System (IPSS) score and circulating microRNA level as risk factors for overall survival in this study cohort.

Factors	P	HR	95.0% CI	
			Lower	Upper
IPSS INT-1 vs. IPSS Low	.245	2.093	.602	7.281
IPSS INT-2 vs. IPSS Low	.006	4.985	1.595	15.586
miR-16 high vs. low	.820	1.152	.341	3.890
Let-7a high vs. low	.006	5.178	1.615	16.601

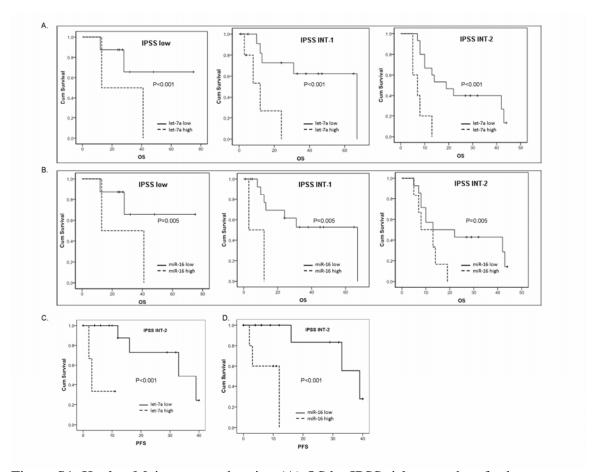


Figure S1. Kaplan-Meier curves showing (A) OS by IPSS risk score then further stratified by let-7a levels (P < .001); (B) OS by IPSS risk score then further stratified by miR-16 levels (P = .005). PFS in MDS patients with an IPSS risk score of INT-2 further stratified by (C) let-7a (P < .001) and (D) miR-16 levels (P < .001). OS, overall survival; PFS, progression-free survival; IPSS, International Prognostic Scoring System; INT, intermediate; MDS, myelodysplastic syndrome.

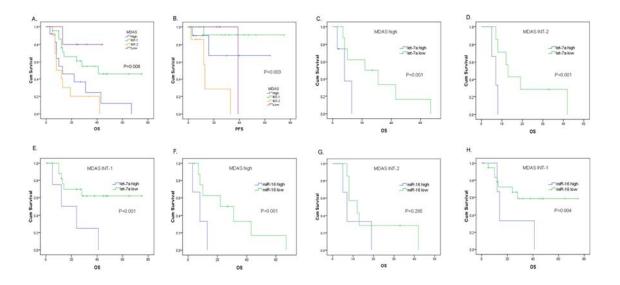


Figure S2. Kaplan-Meier curves showing patient survival based on the MD Anderson risk model score (MDAS) and circulating miR levels. (A) OS of all patients by MDAS risk score (P = .006); (B) PFS of all patients by MDAS risk score (P = .003). (C) OS of MDAS high patients stratified by let-7a (P < .001). (D) OS of MDAS INT-2 patients stratified by let-7a (P < .001). (E) OS of MDAS INT-1 patients stratified by let-7a (P < .001). (F) OS of MDAS high patients stratified by miR-16 (P < .001). (G) OS of MDAS INT-2 patients stratified by miR-16 (P = .295). (H) OS of MDAS INT-1 patients stratified by miR-16 (P = .004). The number of patients in the MDAS low group was not enough for statistical comparison. OS, overall survival; PFS, progression-free survival; IPSS, International Prognostic Scoring System; INT, intermediate.