

Table SI. Levels of proinflammatory factors and relative expression levels of miRNAs for AP vs. NC.

Factors	NC (n=30) median (IQR)	AP (n=90) median (IQR)	P-value
IL-1 (pg/ml)	1.16 (0.18-1.93)	15.66 (12.17-19.96)	0.000
IL-6 (pg/ml)	2.05 (0.62-3.56)	20.52 (15.33-31.49)	0.000
IL-8 (pg/ml)	20.19 (12.70-31.70)	35.11(25.47-66.36)	0.000
IL-10 (pg/ml)	1.49 (0.89-3.44)	7.72 (4.10-18.37)	0.000
TNF- α (pg/ml)	86.16 (49.63-237.20)	188.78(123.22-312.48)	0.000
hsa-miR-126-5p	0.830 (0.40-1.35)	3.58 (1.91-5.14)	0.000
hsa-miR-130b-p	0.83 (0.42-1.23)	1.57 (0.92-2.17)	0.000
hsa-miR-548d-5p	0.92 (0.58-1.25)	2.58 (1.67-3.54)	0.000

The nonparametric Mann Whitney U test was used to compare between 2 groups. Results are presented as median (IQR). P<0.05 was considered to suggest a significant difference. IL-1, interleukin-1; IL-6, interleukin-6; IL-8, interleukin-8; IL-10, interleukin-10; TNF- α , tumor necrosis factor- α ; IQR, interquartile range; AP, acute pancreatitis; NC, normal controls.

Table SII. Single-factor binary logistic regression analysis for AP vs. NC.

Factors	RC	SE	P-value	OR	95% CI	
IL-1	0.838	0.245	0.001	2.311	1.430	3.734
IL-6	0.295	0.062	0.001	2.311	1.430	3.734
IL-8	0.042	0.013	0.001	1.043	1.018	1.070
IL-10	0.209	0.063	0.001	1.232	1.088	1.395
TNF- α	0.007	0.002	0.001	1.007	1.003	1.011
has-miR-126-5p	1.274	0.278	0.000	3.575	2.072	6.170
has-miR-130b-5p	0.999	0.308	0.001	2.716	1.486	4.963
has-miR-548d-5p	1.766	0.385	0.000	5.848	2.751	12.43

Logistic regression analyses were calculated to assess the association between AP and factors. $P < 0.05$ was considered to suggest a significant difference. AP, acute pancreatitis; NC, normal control; IL-1, interleukin-1; IL-6, interleukin-6; IL-8, interleukin-8; IL-10, interleukin-10; TNF- α , tumor necrosis factor- α ; RC, regression coefficient; SE, standard error; OR, odds ratios; 95% CI, 95% confidence interval.

Table SIII. Multi-factor binary logistic regression analysis for acute pancreatitis vs. normal control.

A, Multi-factor binary logistic regression analysis of all factors						
Factor	RC	SE	P-value	OR	95% CI	
IL-1	2.910	249.500	0.991	18.364	0.000	4.357x10 ²¹³
IL-6	2.947	217.407	0.989	19.048	0.000	2.171x10 ¹⁸⁶
IL-8	-0.205	112.551	0.999	0.814	0.000	5.182x10 ⁹⁵
IL-10	-0.006	215.841	1.000	0.994	0.000	5.271x10 ¹⁸³
TNF- α	0.090	9.344	0.992	1.095	0.000	98448808.196
hsa-miR-126-5p	11.858	3066.866	0.997	141218.903	0.000	.
hsa-miR-130b-5p	-4.578	2427.851	0.998	0.010	0.000	.
hsa-miR-548d-5p	8.792	1868.428	0.996	6580.831	0.000	.
Constant	-68.970	5700.225	0.990	0.000		
B, Multi-factor binary logistic regression analysis after adjusting factors						
Factors	RC	SE	P-value	OR	95% CI	
IL-1	5.865	306.230	0.985	352.413	0.000	1.623x10 ²⁶³
IL-6	5.370	278.086	0.985	214.819	0.000	1.094x10 ²³⁹
hsa-miR-126-5p	8.099	1397.019	0.995	3291.130	0.000	-
hsa-miR-548d-5p	25.501	2218.086	0.991	118860533	0.000	-
Constant	-122.644	5152.323	0.981	130.877	0.000	-

RC, regression coefficient; SE, standard error; OR, odds ratio; hsa, *Homo sapiens*; miR, microRNA; 95% CI, 95% confidence interval.

Table SIV. Multi-classification disordered logistic regression analysis on AP severity.

A, MAP						
Factor	RC	SE	P-value	OR	95% CI	
Intercept	-4.601	1.238	<0.001			
IL-1	0.732	0.287	0.011	2.079	1.184	3.652
hsa-miR-126-5p	0.913	0.487	0.061	2.492	0.959	6.475
Intercept	-7.053	1.982	<0.001			
IL-6	.491	0.149	0.001	1.634	1.220	2.188
hsa-miR-126-5p	2.071	0.661	0.002	7.930	2.172	28.962
Intercept	-5.417	1.200	<0.001			
IL-6	0.321	0.087	<0.001	1.378	1.162	1.634
hsa-miR-548d-5p	2.011	0.553	<0.001	7.468	2.528	22.063

B, SAP						
Factor	RC	SE	P-value	OR	95% CI	
Intercept	-10.444	1.799	<0.001			
IL-1	0.838	0.290	0.004	2.313	1.310	4.082
hsa-miR-126-5p	2.024	0.533	<0.001	7.566	2.660	21.517
Intercept	-12.759	2.299	<0.001			
IL-6	.576	0.152	<0.001	1.779	1.322	2.394
hsa-miR-126-5p	3.158	0.697	<0.001	23.519	5.998	92.226
Intercept	-10.783	1.696	<0.001			
IL-6	0.386	0.090	<0.001	1.471	1.234	1.755
hsa-miR-548d-5p	3.298	0.633	<0.001	27.059	7.820	93.634

C, RAP						
Factor	RC	SE	P-value	OR	95% CI	
Intercept	-6.108	1.368	<0.001			
IL-1	0.777	0.289	0.007	2.175	1.235	3.830
hsa-miR-126-5p	1.217	0.498	0.014	3.377	1.273	8.959
Intercept	-9.178	2.099	<0.001			
IL-6	.546	0.151	<0.001	1.726	1.285	2.318
hsa-miR-126-5p	2.453	0.678	<0.001	11.620	3.078	43.868
Intercept	-5.549	1.232	<0.001			
IL-6	0.366	0.088	<0.001	1.443	1.214	1.714
hsa-miR-548d-5p	1.629	0.567	0.004	5.099	1.677	15.504

AP, acute pancreatitis; SAP, severe AP; MAP, mild AP; RAP, recurrent AP; RC, regression coefficient; SE, standard error; OR, odds ratio; hsa, *Homo sapiens*; miR, microRNA; IL-1, interleukin-1; IL-6, interleukin-6; IL-8, interleukin-8; IL-10, interleukin-10; TNF- α , tumor necrosis factor- α .

Table SV. Spearman correlation analysis between factors and AP.

n=120	IL-1	IL-6	IL-8	IL-10	TNF- α	hsa-miR-126-5p	hsa-miR-130b-5p	hsa-miR-548d-5p
r	0.713 ^a	0.657 ^a	0.354 ^a	0.468 ^a	0.352 ^a	0.571 ^a	0.335 ^a	0.567 ^a
P-value	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Spearman correlation coefficients were calculated to determine associations between factors and AP. P<0.05 was considered to suggest a significant difference. ^aP<0.01. AP, acute pancreatitis; r, Spearman correlation coefficient; IL-1, interleukin-1; IL-6, interleukin-6; IL-8, interleukin-8; IL-10, interleukin-10; TNF- α , tumor necrosis factor- α .