

Supplementary material

Table S1: CV and QC data of hemogram parameters

	QC Level 1	QC Level 3	QC Level 1	QC Level 3	%CV
Neutrophils (%)	5.25	1.28	2.85	2.11	<8.0
Eosinophils (%)	8.45	8.18	6.94	6.62	<25.0
Immature granulocyte (%)	6.10	2.67	3.43	2.42	<25.0
Immature granulocyte (×10 ³ /μL)	6.24	2.24	4.33	2.56	<25.0
Hemoglobin (g/L)	0.96	0.37	0.93	0.88	<1.0
Lymphocytes (×10 ³ /mCL)	1.20	3.09	5.75	2.78	<8.0
Platelet (×10 ³ /mCL)	2.66	2.22	3.68	2.21	<4.0
Leucocyte (×10 ³ /μL)	1.57	2.25	1.92	2.16	<3.0
Neutrophils (×10 ³ /mCL)	4.56	1.58	3.14	2.29	<8.0

CV: Coefficient of variation, QC: Quality control.

Table S2: Repeatability and precision measurements for CRP, albumin, and PCT

	Intra-laboratory repeatability measurements			Manufacturer-reported precision values		
	%CV 1	%CV 2	%CV 3	%CV 1	%CV 2	%CV 3
CRP	2.5 (5.1 ± 0.13)	2.3 (351 ± 7.99)		3.3 (5.1 ± 0.17)	2.4 (351 ± 2.4)	
Albumin	0.7 (51.3 ± 0.4)	1.2 (42.4 ± 0.5)		0.9 (51.3 ± 0.5)	1.0 (42.2 ± 0.4)	
PCT	7.1 (0.08 ± 0.007)	1.8 (0.431 ± 0.008)	1.1 (54.4 ± 0.618)	8.7 (0.08 ± 0.007)	2.6 (0.431 ± 0.011)	1.6 (54.4 ± 0.895)

CRP: C-reactive protein, PCT: Procalcitonin, CV: Coefficient of variation.

Table S3: Alvarado score for acute appendicitis

Right lower quadrant tenderness	2 points
Elevated temperature (37.3°C or 99.1°F)	1 point
Rebound tenderness	1 point
Migration of pain to the right lower quadrant	1 point
Anorexia	1 point
Nausea or vomiting	1 point
Leukocytosis >10,000	2 points
Leukocyte left shift (>75% neutrophils)	1 point
<4 points: Low probability of appendicitis, no need for additional imaging.	
5-6 points: Acute appendicitis is possible.	
7-8 points: Acute appendicitis is likely.	
9-10 points: Highly likely acute appendicitis.	

Table S4: Comparison of routine laboratory parameters between groups

Parameters	Control (<i>n</i> = 100)	Appendicitis (<i>n</i> = 100)	<i>p</i> value
Leukocyte, $\times 10^9/L$	7.13 (5.93 to 8.67)	12.5 (9.22 to 18.57)	<0.001
Hemoglobin, g/dL	15.55 (14 to 16.17)	14.65 (13.12 to 15.87)	0.018
Platelet, $\times 10^9/L$	267.5 (232.25 to 309.75)	266.5 (221.25 to 312.75)	0.738
Glucose, mg/dL	84.31 $\pm$ 6.27	86.2 $\pm$ 7.05	0.047
Urea, mg/dL	14.17 $\pm$ 2.85	13.72 $\pm$ 3.05	0.277
Creatinine, mg/dL	1 (0.85 to 1.11)	1.03 (0.85 to 1.17)	0.197
ALT, U/L	30.72 $\pm$ 9.92	29.99 $\pm$ 11.07	0.622
AST, U/L	24.17 $\pm$ 5.61	25.26 $\pm$ 6.39	0.200

Data are presented as median (Interquartile range: 25 to 75) or mean $\pm$ standard deviation.

ALT: Alanine aminotransferase, AST: Aspartate aminotransferase.