

Supplementary

Table S1 All inclusion variables and variables with missing data > 40%

Inclusion variables	variables with missing data > 40%
Insulin-like growth factor-1 (IGF-1)	Bone-specific alkaline phosphatase (BAP)
Insulin-like growth factor binding protein-3 (IGFBP-3)	Procalcitonin (PCT)
25-hydroxyvitamin D (25-OH-VD)	Calprotectin
Human interleukin-2 (IL-2)	Iron (Fe)
White blood cell count (WBC), $\times 10^9/L$	Ferritin (FER)
Absolute lymphocyte count (LYM), $\times 10^9/L$	Unsaturated iron binding capacity (UIBC)
Absolute neutrophil count (NEU), $\times 10^9/L$	Total iron binding capacity (TIBC)
Absolute monocyte count (MON), $\times 10^9/L$	Transferrin saturation (TSAT)
Absolute eosinophil count (EOS), $\times 10^9/L$	Serum hemolysis index
Absolute basophil count (BAS), $\times 10^9/L$	Serum icterus index
Red blood cell count (RBC), $\times 10^{12}/L$	Calcium (Ca)
Hemoglobin (HGB), g/L	Phosphorus (P)
Hematocrit (HCT), %	C-terminal telopeptide of type I collagen (CTX-I)
Mean corpuscular volume (MCV), fL	N-terminal propeptide of type I procollagen (PINP)
Mean corpuscular hemoglobin (MCH), pg	Osteocalcin (OC)
Mean corpuscular hemoglobin concentration (MCHC), g/L	Parathyroid hormone (PTH)
Red blood cell distribution width (RDW), %	Tartrate-resistant acid phosphatase 5b (TRACP-5b)
Platelet count (PLT), $\times 10^9/L$	25-hydroxyvitamin D
Mean platelet volume (MPV), fL	
Plateletcrit (PCT), %	
Platelet distribution width (PDW), %	
High-sensitivity C-reactive protein (hs-CRP), mg/L	
Erythrocyte sedimentation rate (ESR), mm/h	
Total protein (TP), g/L	
Albumin (ALB), g/L	
Globulin (GLB), g/L	
Total bilirubin (TBIL), $\mu\text{mol}/L$	
Direct bilirubin (DBIL), $\mu\text{mol}/L$	
Indirect bilirubin (IBIL), $\mu\text{mol}/L$	
Alanine aminotransferase (ALT), U/L	
Aspartate aminotransferase (AST), U/L	
Cholinesterase (CHE), U/L	
γ -Glutamyl transferase (GGT), U/L	
Alkaline phosphatase (ALP), U/L	

Adenosine deaminase (ADA), U/L
 Total bile acid (TBA), $\mu\text{mol/L}$
 Prealbumin (PA), mg/L
 Creatinine (CREA), $\mu\text{mol/L}$
 Urea (UREA), mmol/L
 Uric acid (UA), $\mu\text{mol/L}$
 Cystatin C (Cys-C), mg/L
 Lactate dehydrogenase (LDH), U/L
 Creatine kinase (CK), U/L
 Creatine kinase-MB (CK-MB), U/L
 Calcium (Ca), mmol/L
 Phosphorus (P), mmol/L
 Magnesium (Mg), mmol/L
 Triglyceride (TG), mmol/L
 Total cholesterol (TC), mmol/L
 Amylase (AMY), U/L
 Lipase (LPS), U/L
 Human interleukin-4 (IL-4)
 Human interleukin-6 (IL-6)
 Human interleukin-10 (IL-10)
 Human tumor necrosis factor- α (TNF- α)
 Human interferon- γ (IFN- γ)
 CD19+ B cells
 CD3+ T cells
 CD4+ T cells
 CD8+ T cells
 CD3-CD16⁺CD56⁺ NK cells
 CD4⁺/CD8⁺ ratio
 Normal control: Prothrombin time (PT)
 Patient: Prothrombin time (PT)
 International normalized ratio (INR)
 Fibrinogen (FIB)
 Normal control: Activated partial
 thromboplastin time (APTT)
 Patient: Activated partial thromboplastin time
 (APTT)
 Normal control: Thrombin time (TT)
 Patient: Thrombin time (TT)
 Plasma D-dimer
 Zinc (Zn)
 Copper (Cu)
 Iron (Fe)
 Magnesium (Mg), mmol/L
 Serum folate

Vitamin B12 (Vit B12)
 Immunoglobulin G (IgG), g/L
 Immunoglobulin A (IgA), g/L
 Immunoglobulin M (IgM), g/L
 Complement C3 (C3), g/L
 Complement C4 (C4), g/L
 Retinol-binding protein (RBP), mg/L
 Total immunoglobulin E (IgE), IU/mL

Table S2 The selected 12 variables and their P-value of Student's test/Mann-Whitney U-test and ROC

Name	P	LR.P	ROC	score
complement C4	0.002	0.024	0.745	3
RDW	0.043	0.034	0.661	3
complement C3	0.028	0.147	0.674	2
MCH	0.027	0.032	0.335	2
MCHC	0.011	0.019	0.310	2
Hb	0.042	0.045	0.360	2
CTX-1	0.185	0.399	0.602	1
CD3-CD16+CD56+	0.070	0.055	0.644	1
human IFN-r	0.204	0.467	0.600	1
human IL-6	0.133	0.577	0.619	1
PTH	0.186	0.379	0.602	1
TBA	0.020	0.936	0.315	1

Appendix 1 Full regression equation and model intercept

Intercept: -7.249

Full regression equation: $\ln\left(\frac{P}{1-P}\right) = -0.729 + 0.345 \times \text{RDW} + 0.037 \times \text{C4}$