

Supplementary Table S1. Comparisons of radiological and laboratory features between anti-MDA5+DM patients with PJP and without PJP.

Variables	PJP+ group (n=47)	PJP- group (n=60)	p-value
Radiological findings, n %			
GGO	40 (85.1)	57 (95.0)	0.404
Consolidation	32 (68.1)	46 (76.7)	0.932
Cysts	6 (12.8)	5 (8.3)	0.469
Pleural effusion	4 (8.5)	7 (11.7)	0.696
Initial laboratory indicators			
WBC, median (IQR), 10 ⁹ /L	7.30 (4.25)	6.30 (2.36)	0.019
N, median (IQR), 10 ⁹ /L	6.50 (4.15)	4.62 (2.19)	<0.001
L, median (IQR), 10 ⁹ /L	0.47 (0.43)	0.67 (0.49)	0.001
<1.1	45 (95.7)	46 (76.7)	0.006
≥1.1	2 (4.3)	14 (23.3)	
NLR, median (IQR)	13.13 (14.87)	6.59 (5.84)	<0.001
HB, median (IQR), g/L	119.0 (21.0)	120.0 (25.5)	0.631
PLT, median (IQR), 10 ⁹ /L	206 (131)	197 (110)	0.343
NK, median (IQR), cell/μl	35 (55)	58 (73)	0.099
B, median (IQR), cell/μl	48 (88)	97 (119)	0.014
T, median (IQR), cell/μl	283 (234)	497 (454)	0.007
CD8+ T-cell, median (IQR), cell/μl	85 (114)	171 (185)	0.049
CD4+ T-cell, median (IQR), cell/μl	137 (156)	285 (345)	0.008
IgG, median (IQR), g/L	15.2 (13.9)	13.5 (6.4)	0.76
IgM, median (IQR), g/L	1.4 (1.0)	1.1 (0.9)	0.201
IgA, median (IQR), g/L	2.7 (1.6)	2.7 (1.2)	0.817
IFN-γ, median (IQR), pg/ml	2.18 (3.09)	0.82 (0.52)	0.759
TNF-α, median (IQR), pg/ml	2.00 (9.01)	1.34 (1.76)	0.386
IL-10, median (IQR), pg/ml	2.11 (4.81)	2.47 (5.82)	0.718
IL-6, median (IQR), pg/ml	11.60 (27.61)	3.74 (18.32)	0.141
IL-4, median (IQR), pg/ml	1.79 (2.42)	1.60 (1.59)	0.970
IL-2, median (IQR), pg/ml	1.89 (4.55)	1.58 (2.40)	0.971
ESR, median (IQR), mm/h	42 (55)	29 (42)	0.28
CRP, median (IQR), mg/dl	28.0 (54.9)	9.0 (21.7)	0.020
LDH, median (IQR), U/L	453 (232)	360 (108)	0.020
FET, median (IQR), μg/L	1102 (1393)	854 (956)	0.013
BNP, median (IQR), pg/ml	353.5 (519.2)	160.0 (596.0)	0.003

Supplementary Table S2. Multivariate binary logistic regression analysis of indicators for PJP occurrence in anti-MDA5+DM patients. (Combination factor =LDH-CD4*7.411/0.004).

		Variables in the equation						
		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I. for EXP(B)
								Lower Upper
Step 1 ^a	LDH	.004	.002	5.162	1	.023	1.004	1.001 1.008
	CD4+ T-cells	-.7411	2.898	6.537	1	.011	.001	.000 .177
	CD8+ T-cells	-.761	3.801	.040	1	.841	.467	.000 803.355
	N	.120	.108	1.246	1	.264	1.128	.913 1.393
	CRP	.011	.008	1.816	1	.178	1.011	.995 1.026
	FET	.000	.000	0.033	1	.856	1.000	1.000 1.001
	Constant	-1.533	1.114	1.893	1	.169	.216	

a. Variable(s) entered on step 1: LDH, CD4, CD8, N, CRP, Ferritin .

Supplementary Table S3. Predictors for PJP diagnosis in anti-MDA5+DM patients. (Combination factor =LDH-CD4*7.411/0.004).

	AUC	p-value	95% CI	Cut-off value	Sensitivity/ specificity
LDH	0.793	0.000	0.625,0.854	443	0.667/0.833
CD4+ T-cells	0.779	0.000	0.673,0.884	38	0.897/0.643
CD8+ T-cells	0.688	0.004	0.566,0.810	43	0.795/0.690
N	0.731	0.000	0.619,0.843	5.18	0.769/0.667
CRP	0.701	0.002	0.587,0.816	25.5	0.590/0.763
FET	0.614	0.079	0.489,0.739	892	0.718/0.619
Combination factor	0.819	0.000	0.726,0.912	-0.442	0.949/0.619

Supplementary Table S4. Comparisons between survivors and non-survivors in the PJP+ group.

Variables	Survivors (n=21)	Non-survivors (n=26)	p-value
MTX, n%	2 (9.5)	0 (0.0)	0.108
HCQ, n%	1 (4.8)	3 (11.5)	0.408
WBC, median (IQR), 10 ⁹ /L	7.01 (6.39)	7.51 (2.72)	0.368
N, median (IQR), 10 ⁹ /L	5.84 (5.37)	6.82 (2.91)	0.211
L, median (IQR), 10 ⁹ /L	0.45 (0.33)	0.52 (0.59)	0.131
HB, median (IQR), g/L	119.3 (18.7)	121.5 (25.1)	0.199
PLT, median (IQR), 10 ⁹ /L	229 (122)	179 (137)	0.380
NK, median (IQR), cell/ μ l	36 (45)	32 (62)	0.706
B, median (IQR), cell/ μ l	35 (90)	51 (135)	0.194
T, median (IQR), cell/ μ l	234 (298)	284 (246)	0.733
CD8+ T-cell, median (IQR), cell/ μ l	87 (181)	79 (80)	0.417
CD4+ T-cell, median (IQR), cell/ μ l	128 (128)	160 (173)	0.777
IgG, mean $\pm$ SD, g/L	13.5 $\pm$ 7.1	16.2 $\pm$ 6.7	0.873
IgM, median (IQR), g/L	1.4 (1.3)	1.4 (0.5)	0.696
IgA, median (IQR), g/L	2.6 (1.9)	2.8 (0.6)	0.274
IFN- γ , median (IQR), pg/ml	2.78 (6.82)	0.82 (0.52)	0.180
TNF- α , median (IQR), pg/ml	2.30 (9.01)	1.34 (1.76)	0.221
IL-10, median (IQR), pg/ml	2.01 (4.19)	2.49 (2.36)	0.733
IL-6, median (IQR), pg/ml	13.50 (30.9)	2.90 (27.9)	0.241
IL-4, median (IQR), pg/ml	1.89 (2.42)	1.60 (1.59)	0.583
IL-2, median (IQR), pg/ml	1.89 (1.90)	1.75 (1.84)	0.462
ESR, median (IQR), mm/h	56 (39)	42 (52)	0.521
CRP, median (IQR), mg/L	27.6 (68.0)	29.2 (47.5)	0.624