

Supplementary Material

Efficacy and safety of oxymatrine in the treatment of patients with erythrodermic psoriasis

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Supplementary Figures and Figure Legends



Figure S1. Images of the skin lesions of Patient A before and after treatment with oxymatrine, and during follow-up. week 0, baseline or before treatment; week 8, 8 weeks after the treatment, or the completion of treatment; week 24 and week 32, follow-up for 16 and 24 weeks, respectively, after the completion of the treatment; and week 37 and week 45 weeks, 29 and 37 weeks after the completion of the treatment, respectively (the patient received oxymatrine treatment again for 8 weeks at week 37 until week 45).

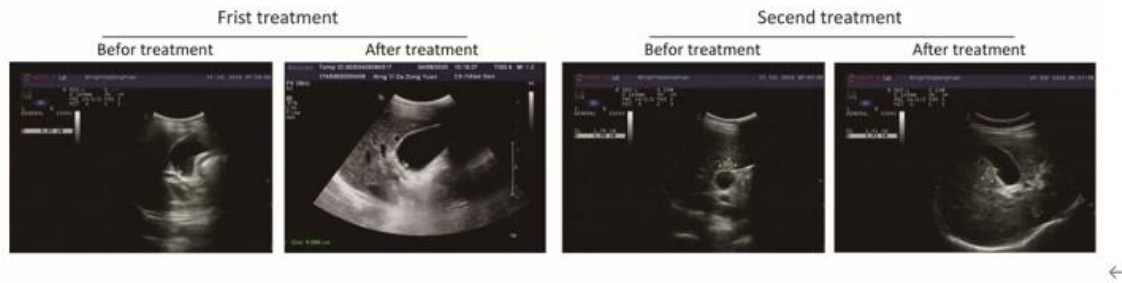


Figure S2. Representative images of abdominal ultrasound of Patient A before and after two courses of treatment with oxymatrine. At week 37, Patient A was re-treated with oxymatrine for 8 weeks after having been treated with oxymatrine for 8 weeks and followed up for 29 weeks, in order to consolidate the therapeutic effect and further improve the lesion.



Figure S3. Images of the skin lesions of Patient C before and after treatment with oxymatrine, and during follow-up. week 0, baseline or before treatment; week 8, 8 weeks after the treatment, or the completion of the treatment; and week 32, week 68 and week 113, follow-up for 24, 60 or 105 weeks, respectively, after the completion of the treatment.



Figure S4. Images of the skin lesions of Patient D before and after treatment with oxymatrine, and during follow-up. week 0, baseline or before treatment; week 8, 8 weeks after the treatment, or the completion of treatment; week 20 and week 27, follow-up for 12 or 19 weeks, respectively, after the completion of the treatment.

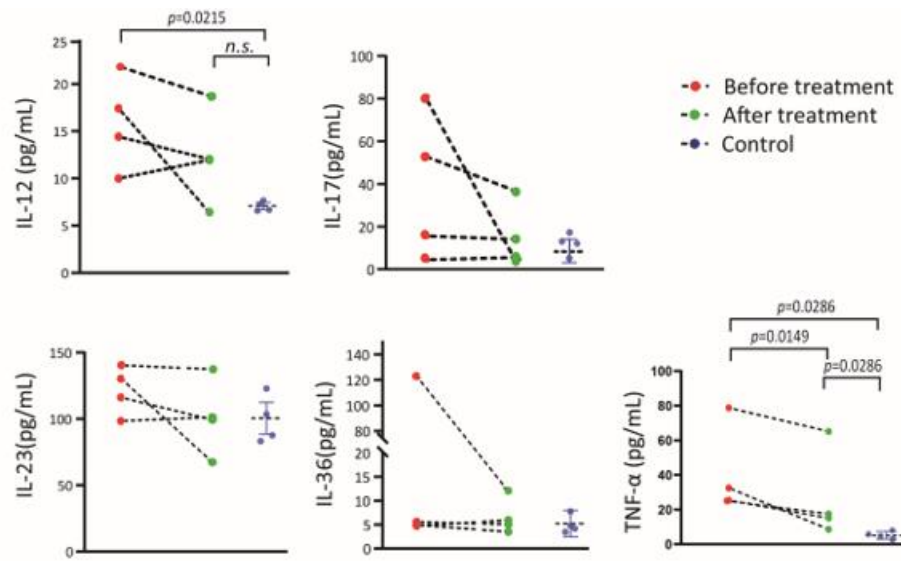


Figure S5. The levels of serum TNF- α , IL-12, IL-17A, IL-23, and IL-36 γ in patients with EP (n=4) before and after 8-week treatment with oxymatrine and healthy volunteers (n=4). Paired *t*-test was for comparing TNF- α , IL-12, IL-17A, and IL-23 levels, and Wilcoxon test was used for comparing IL-36 γ levels between before and post-treatment groups. Unpaired *t*-test was for comparing IL-12, IL-17A, IL-23 and IL-36 γ levels and Mann-Whitney test was used for comparing TNF- α level between control and before or after treatment groups. The levels of IL-12 and TNF- α in patients with EP before treatment were significantly higher than that in the healthy volunteers, and significantly decreased after 4-week treatment.

Supplementary Tables

Table S1. Liver and kidney function, serum uric acid and hepatitis B viral load of Patients A, B, C and D during the treatment and follow-up

WEEKS Variable	Patient A					Patient B					Patient C				Patient D				Normal value
	Treatment	Follow-up		Treatment		Treatment	Follow-up			Treatment	Follow-up			Treatment	Follow-up				
	0	8	20	37	45	0	8	20	32	65	0	8	60	113	0	8	16	27	
TP (g/L)	63.33↓	77.14	79.71	72.46	77.56	65.83	76.73	72.4	75.34	71.18	78.9	75.6	77.88	76.5	62.89↓	68.89	68.07	71.96	65.00-85.00
ALB (g/L)	30.15↓	43.71	46.05	41.65	43.82	41.39	48.31	45.76	47.02	45.98	42.5	43.4	43.71	45.3	35.62↓	40.31	41.64	41.03	40.00-55.00
GLB (g/L)	33.2	33.4	33.7	30.8	33.7	24.4	28.4	26.6	28.3	25.2	36.4	32.2	34.2	31.2	27.3	28.6	26.4	30.9	20.0-40.0
A/G	0.91↓	1.31	1.37	1.35	1.3	1.7	1.7	1.72	1.66	1.82	1.17↓	1.35	1.28	1.45	1.3	1.41	1.58	1.33	1.20-2.40
AST (U/L)	57.8↑	32.6	24.6	107.3↑	60.5↑	33.4	20.1	15.7	17.1	13.3	27.2	22.4	32.1	30.5	17.5	15.2	17.1	16.3	13.0-35.0
ALT (U/L)	34.9	20.7	18.8	97.9↑	49.1↑	21.7	12.5	12.5	11.1	10.6	17.4	15	26.2	34.9	10.1	17.9	8.5↓	12.4	7.0-40.0
TBIL (μmol/L)	21.47↑	24.91↑	16.96	20.03↑	18.55↑	11.66	14.37	14.3	16.66	13.56	16.21	15.22	14.88	24.2↑	5.43	9.87	7.85	6.62	3.40-17.10
DBIL (μmol/L)	9.68↑	8.88↑	5.85	9.01↑	6.39	3.91	3.93	4.19	4.59	3.64	4.83	3.98	4.52	6.7	2.05	3.44	2.97	2.42	0.00-6.80
IBIL (μmol/L)	11.8↑	16.0↑	11.1↑	11.0↑	12.2↑	7.8	10.4↑	10.1	12.1↑	9.9	11.4↑	11.2↑	10.4↑	17.5↑	3.4	6.4	4.9	4.2	1.7-10.2
UREA (mmol/L)	4.54	4.16	4.6	5.33	5.55	4.77	5.11	5.22	4.89	2.74	4.06	4.76	5.49	5.01	2.04↓	1.50↓	2.94↓	2.70↓	2.60-7.50
CREA (μmol/L)	68.8	56.5	54.3	61.2	59.8	48.9	48	49.2	48.2	50.1	76.6	71.3	70.5	73	48.8	54.8↓	53.6↓	52.6↓	41.0-73.0
UA (μmol/L)	434↑	372↑	390↑	399↑	343	310	269	309	240	290	497↑	455↑	407↑	392↑	498↑	505↑	560↑	497↑	155-357
HBsAg (COI)	6707(+)	6300(+)	6208(+)	6173(+)	5409 (+)	350.4(+)	345.8(+)	383.9(+)	346.4(+)	342.3(+)	0.344 (-)	/	/	/	0.367(-)	/	/	/	<1.000
HBsAb (IU/L)	2.0 (-)	2.0 (-)	2.0 (-)	2.0 (-)	2.0 (-)	2.0 (-)	2.0 (-)	2.0 (-)	2.0 (-)	2.0 (-)	1000.0(+)	/	/	/	92.2 (+)	/	/	/	>10.000
HBeAg (COI)	0.083 (-)	0.098 (-)	0.095 (-)	0.095 (-)	0.056 (-)	1945 (+)	2031 (+)	1652 (+)	1577 (+)	1845 (+)	0.086 (-)	/	/	/	0.073 (-)	/	/	/	<1.000
HBeAb (COI)	0.368 (+)	0.368 (+)	0.483(+)	0.154(+)	0.133(+)	7.530(-)	8.590(-)	8.52(-)	7.61(-)	8.14 (-)	1.57 (-)	/	/	/	1.51 (-)	/	/	/	>1.000
HBcAb (COI)	0.008 (+)	0.007 (+)	0.009 (+)	0.008 (+)	0.008 (+)	0.126 (+)	0.106 (+)	0.15 (+)	0.153 (+)	0.20 (+)	2.27 (+)	/	/	/	2.19 (-)	/	/	/	>1.000
HBV DNA (IU/ml)	1.28 × 10 ⁴ ↑	4.45 × 10 ³ ↑	<1.0 × 10 ²	1.07 × 10 ⁴ ↑	1.32 × 10 ³ ↑	1.08 × 10 ⁸ ↑	4.27 × 10 ⁷ ↑	4.82 × 10 ⁷ ↑	2.40 × 10 ⁸ ↑	1.06 × 10 ⁸ ↑	/	/	/	/	/	/	/	/	<1.0 × 10 ²

Note: A/G, albumin/ globulin; ALB, albumin; ALT, alanine aminotransferase; AST, aspartate transferase; BS, baseline; COI, cut-off index; CREA, creatinine; DBIL, direct bilirubin; GLB, globulin; HBcAb antibodies to hepatitis B core antigen; HBeAb, antibodies to HBe; HBsAb, hepatitis B surface antibody; HBsAg, hepatitis B surface antigen; IBIL, Indirect bilirubin; PASI, psoriasis area and severity index; TBIL, total bilirubin; TP, total protein; UA, uric acid; UREA, urea.

Table S2. Blood routine, Electrolytes and Blood fat during the treatment and follow-up

WEEKS Variable	Patient A						Patient B							Patient C				Patient D				Normal value (M: male, F: female)
	Treatment		Follow-up		Treatment		Treatment		Follow-up					Treatment		Follow-up		Treatment		Follow-up		
	0	1	8	20	37	45	0	8	20	32	46	56	65	0	8	60	113	0	8	16	27	
Leukocyte count (10^9/L)	8.43	7.53	5.93	5.18	3.88	3.96	7.01	6.39	6.88	6.79	7.25	5.99	6.29	12.16 ↑	8.69	9.66 ↑	7.37	9.92 ↑	7.35	8.06	8.97	3.50~9.50
Neutrophil relative value (%)	65.8	58.2	52.8	56.3	56.4	55	69.7	64.8	68.9	62.9	61.2	63.3	63.4	66.7	61.5	54.7	54.5	59.1	57.7	63.1	64.2	40.0~75.0
Lymphocyte relative value (%)	23.3	29.5	39.1	36.1	36.1	37.4	19.3 ↓	26.4	22.7	26.1	26.9	25.7	28	24.5	30.4	36.4	34.7	29.3	34	26.6	25.6	20.0~50.0
Monocyte relative value (%)	7.8	7.8	6.6	6	5.7	5.8	8.8	7.2	6.7	9.9	10.1 ↑	9.5	6.8	7.6	6.2	6.3	7.7	7.2	5.6	6.9	6.8	3.0~10.0
Eosinophil relative value (%)	2.5	4	1	1.2	1.5	1.5	1.9	1.4	1.6	1	1.5	1.2	1.3	0.9	1.3	2	2.8	4.1	2.4	3	3	0.4~8.0
Basophil relative value (%)	0.6	0.5	0.5	0.4	0.3	0.3	0.3	0.2	0.1	0.1	0.3	0.3	0.5	0.3	0.6	0.6	0.3	0.3	0.3	0.4	0.4	0.0~1.0
Erythrocyte Count (10^12/L)	3.92	3.76 ↓	4.08	4.38	3.89	4.03	4.93	5.28 ↑	5.06	5	4.81	4.82	5.04	5.18	5.23	5.53	5.31	5.3	5.79	5.21	5.5	4.30~5.80 (M)/3.80~5.10 (F)
Hemoglobin (g/L)	125	120	127	139	122	126	144	153.0 ↑	146	147	143	142	148	152	155	168	160	164	178 ↑	174	176 ↑	130.0~175.0 (M)/115.0~150.0 (F)
Hematocrit (%)	37.8	37.1	38.6	41.8	36.8	38.4	43	45.50 ↑	43.5	43	41.4	42	43	46.7	46.4	50.10 ↑	48.5	49.8	52.4 ↑	50.50 ↑	50.60 ↑	40.0~50.0 (M)/35.0~45.0 (F)
Platelet count (10^9/L)	187	216	94.0 ↓	75.0 ↓	51.0 ↓	45.0 ↓	240	220	240	182	168	188	230	268	238	227	196	294	274	282	258	125.0~350.0
Potassium	3.30 ↓	4.24	3.25 ↓	3.54	3.07 ↓	3.10 ↓	4.04	3.61	3.87	3.83	3.49 ↓	3.92	4.26	4.18	4.5	4.72	4.51	4.42	4.54	4.29	4.41	3.50~5.30
Sodium (mM/L)	141.7	141.5	141.3	143.2	143.1	141.4	143.9	139.2	140.3	143.3	139.8	139.9	139	141.9	141.1	143.3	143	142.1	142.9	139.4	141.7	137.0~147.0
Choloride (mM/L)	101	102	103	103.9	106.1	104.5	107.6	103.8	106.2	107.5	106.1	106.7	105.4	104.2	106.2	107.2	107.4	109.2	106.7	107.5	108.4	99.0~110.0
Iron (mM/L)	6.51 ↓	8.86	11.55	10.71	11.4	12.41	11.24	19.76	14.38	27.65	13.82	14.2	13.68	17.56	19.03	21.01	20.1	10.13 ↓	22.49	16.09	16.03	10.60~36.60 (M)/7.80~32.20 (F)
TG (triacylglycerol) (mM/L)	0.94	0.88	0.64	0.89	0.79	0.78	1.07	1.5	1.38	0.84	0.8	0.74	1.19	1.6	0.92	1.26	1.81 ↑	0.91	0.99	0.88	1.02	0.00~1.70
Total cholesterol (mM/L)	2.86	3.07	3.91	3.94	3.15	3.5	3.97	5.02	4.51	4.52	4.57	4.74	5.17	4.32	3.8	4.17	3.77	3.82	4.02	3.75	3.91	0.00~5.18
HDL cholesterol (mM/L)	0.69 ↓	0.86 ↓	1.74	1.62	1.41	1.93	1.29	1.63	1.31	1.48	1.54	1.85	1.8	1.00 ↓	0.95 ↓	0.99 ↓	1.01 ↓	0.96 ↓	0.92 ↓	0.75 ↓	0.86 ↓	>1.04
LDL cholesterol (mM/L)	1.31	1.38	1.65	1.66	1.51	1.49	1.93	2.11	2.32	2.22	2.69	2.41	2.7	2.42	2.02	2.48	2.1	2.05	2.28	2.38	2.51	0~3.37
Apolipoprotein A1 (g/L)	0.941 ↓	1.098 ↓	1.619 ↑	1.711 ↑	1.298	1.842 ↑	1.57	1.697 ↑	1.483	1.608 ↑	1.466	1.870 ↑	1.922 ↑	1.2	1.129 ↓	1.186 ↓	1.080 ↓	1.142 ↓	1.075 ↓	1.057 ↓	1.192 ↓	1.200~1.600
Apolipoprotein B (g/L)	0.632 ↓	0.588 ↓	0.597 ↓	0.708 ↓	0.498 ↓	0.507 ↓	0.781 ↓	0.751 ↓	0.86	0.837	0.701 ↓	0.825	0.955	1.027	0.764 ↓	0.726 ↓	0.81	0.83	0.814	0.804	0.885	0.800~1.050
Serum lipoprotein a (mg/L)	176.9	241.8	303.5 ↑	266.8	241.7	336.7 ↑	24.2 ↓	9.4 ↓	20.7 ↓	5.4 ↓	30.1 ↓	26.6 ↓	23.0 ↓	626.2 ↑	711.4 ↑	785.3 ↑	753.2 ↑	741.5 ↑	884.9 ↑	854.2 ↑	898.3 ↑	0.0~300.0

