

Table S1. The change of absolute SOFAday07 in patients with sepsis

Characteristics	All patients (<i>n</i> = 288)		Mean difference (95% CI)	<i>P</i> value
	Tα1 group (<i>n</i> = 149)	Placebo group (<i>n</i> = 139)		
SOFA on day 0 (mean, SD)	7.7 ± 3.4	7.1 ± 3.5	0.7 (−0.1, 1.5)	0.108
SOFA on day 3 (mean, SD)	5.6 ± 3.2	5.6 ± 3.4	0 (−0.8, 0.8)	0.977
SOFA on day 7 (mean, SD)	5.0 ± 3.9	5.2 ± 3.9	−0.2 (−1.1, 0.7)	0.684
Absolute SOFA day07 (mean, SD)	2.7 ± 3.3	1.9 ± 3.9	0.8 (0, 1.7)	0.049
Respiratory	1.0 ± 1.3	0.7 ± 1.1	0.3 (0, 0.5)	0.065
Coagulation	0.3 ± 1.0	0.1 ± 1.2	0.1 (−0.1, 0.4)	0.327
Cardiovascular	0.5 ± 1.8	0.5 ± 1.5	0 (−0.3, 0.4)	0.864
Hepatic	0.1 ± 0.7	0 ± 0.8	0.1 (−0.1, 0.2)	0.500
Neurologic	0.6 ± 1.2	0.4 ± 1.4	0.2 (−0.1, 0.5)	0.198
Renal	0.3 ± 0.9	0.1 ± 0.9	0.2 (−0.1, 0.4)	0.156

CI: confidence interval; Tα1: thymosin alpha 1; SOFA: sequential organ failure assessment; SD: standard deviation

Table S2. Baseline clinical characteristics of patients with sepsis after PSM

Characteristics	After PSM		<i>P</i> value
	Tα1 group (<i>n</i> = 111)	Placebo group (<i>n</i> = 111)	
Age	66.1 ± 12.9	65.6 ± 12.7	0.810
Sex (male)	118 (79)	100 (72)	0.633
Pre-existing conditions	93 (84)	90 (81)	0.598
Congestive cardiomyopathy	2	2	
Hypertension	51	49	
Coronary heart disease	13	11	
Liver disease	4	7	
COPD	19	18	
Diabetes	21	22	
Recent trauma	4	5	
Cancer	38	36	

Recent surgical history			0.721
No history of surgery	56	62	
Elective surgery	30	27	
Emergency surgery	25	22	
Other indicators of disease severity			0.928
Mechanical ventilation	86	90	
Shock	35	38	
Use of vasopressor	38	37	
RRT	14	12	
Low dose corticoid	13	10	
Blood transfusion	33	35	
Acute organ dysfunctions			0.326
Pulmonary	106	106	
Renal	28	26	
Cardiovascular	75	63	
Haematologic	39	42	
Hepatic	17	20	
Number of acute organ dysfunctions			0.815
1	19	25	
2	48	44	
3	29	29	
4	12	9	
5	3	4	
Site of infection			0.855
Lung	85	87	
Abdomen	30	28	
Positive blood culture	8	6	
Urinary tract	2	3	
Other	7	8	

Result of pathogens			0.542
Gram negative	23	20	
Gram positive	6	11	
Fungus	12	16	
Mixed	42	44	
No	28	20	
APACHE II score	22.4 ± 6.3	21.2 ± 7.6	0.710
SOFA score	7.5 ± 3.2	7.4 ± 3.6	0.859
mHLA-DR day0	50.8 ± 26.6	52.7 ± 28.9	0.613
C reactive protein (mg/L)	123.0 (76.3, 192.5)	114.5 (65.9, 186.1)	0.310
White blood cell (× 10 ⁹ /L)	14.5 (19.4, 20.2)	14.5 (11.1, 19.0)	0.848
Neutrophil (%)	86.1 (80.9, 90.5)	87.0 (82.9, 91.1)	0.325
Monocyte (%)	5.2 (3.0, 7.5)	4.7 (3.2, 7.4)	0.593
Lymphocyte (× 10 ⁹ /L)	0.9 (0.6, 1.5)	0.9 (0.6, 1.4)	0.874
Platelet (× 10 ⁹ /L)	169.7 (99.3, 252.8)	167.0 (109.8, 284.5)	0.614
Lactate (mmol/L)	2.2 (1.4, 3.1)	2.0 (1.3, 2.9)	0.335
Creatinine (μmol/L)	102.9 (70.2, 192.9)	92.9 (62.6, 189.8)	0.432
Total bilirubin (μmol/L)	15.3 (9.7, 23.6)	12.3 (8.0, 24.2)	0.233
ICU mortality	12 (10.8)	20 (18.0)	0.127
Hospital mortality	19 (17.1)	32 (28.8)	0.039
28-day mortality	16 (14.4)	24 (21.6)	0.163
ICU-free days (median, IQR)	16.4 (6.9~19.6)	13.5 (0.9~19.3)	0.230
MV free days (median, IQR)	21.5 (16.1~25.5)	20.1 (8.1~24.7)	0.074

Values are described by number (percentage), mean ± standard deviation or median (interquartile range). PSM: propensity score matching; COPD: chronic obstructive pulmonary disease; RRT: renal replacement therapy; APACHE II: Acute Physiology and Chronic Health Evaluation II; IQR: interquartile range; mHLA-DR: monocyte human leukocyte antigen-DR; ICU: intensive care unit; MV: mechanical ventilation