

Supplementary Materials

TREC/KREC Levels in Young COVID-19 Patients

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Table S1. Primer and probe sequences of TREC, KREC, and albumin.

Target	Primer or Probe	Sequence (5' > 3')
TREC	Forward	CACATCCCTTTCAACCATGCT
	Reverse	TGCAGGTGCCTATGCATCA
	Probe	ACACCTCTGGTTTTTGTAAGGTGCCCCACT
KREC	Forward	TAAGCTTTCAGCGCCCATTA
	Reverse	CTCCAGGAGCCAGCTCTTAC
	Probe	CTGTCTCTTTCCTTAGTGGCATTATTG
ALB	Forward	TGAAACATACGTTCCCAAAGAGTTT
	Reverse	CTCTCCTTCTCAGAAAGTGTGCATAT
	Probe	TGAGATGCCTGCTGACTTGCTTC A

Table S2. Comparison of clinical characteristics and laboratory findings between ARDS and non-ARDS COVID-19 patients.

Parameter	non-ARDS (n = 26)	ARDS (n = 10)	p-Value	FDR Adjusted p-Value
Age, years	37.50 (32.00–44.00)	39.00 (25.50–44.50)	0.903	0.939
Male	15 (57.69%)	6 (60.00%)	0.931	0.939
Day of illness at the time of analysis	12.00 (8.00–20.00)	14.00 (7.50–28.00)	0.520	0.715
WBC, × 10 ⁹ /L	5.83 (2.85–10.30)	6.19 (4.15–14.84)	0.320	0.689
Lymphocyte count, × 10 ⁹ /L	1.73 (0.71–2.84)	0.86 (0.50–2.46)	0.014	0.077
Neutrophils, × 10 ⁹ /L	3.00 (1.42–8.56)	5.33 (2.90–14.37)	0.049	0.180
RBC, × 10 ⁹ /L	4.49 (4.02–5.34)	4.42 (3.44–5.37)	0.376	0.689
NLR	1.83 (0.70–10.31)	8.08 (1.15–29.94)	0.002	0.022
Platelets, × 10 ⁹ /L	280 (185–375)	270 (188–435)	0.939	0.939
IL-6R inhibitors (tocilizumab, olokizumab)	7 (26.92%)	4 (40.00%)	0.454	0.713
Corticosteroids (dexamethasone, prednisone, methylprednisolone)	10 (38.46%)	7 (70.00%)	0.139	0.382

The data are presented as median and interquartile range (10–90th percentiles) or n (%). p-values comparing ARDS and non-ARDS patients were obtained from Mann-Whitney U test and two-sided Fisher exact test. Significant differences ($p < 0.05$) are shown in bold. NLR—neutrophil-to-lymphocyte ratio; RBC—red blood cells; WBC—white blood cells.

Table S3. Comparison of TREC/KREC levels between survivor and non-survivor COVID-19 patients.

Variable	Survivors (<i>n</i> = 32)	Non-Survivors (<i>n</i> = 4)	<i>p</i> -Value	FDR Adjusted <i>p</i> -Value
TREC/100000 cells	69.04 (4.05–247.31)	4.17 (0.94–9.71)*	0.008	0.016
TREC/WBC in 1 µL of blood	4.03 (0.23–12.87)	0.62 (0.14–1.10)*	0.018	0.018
TREC/lymphocytes in 1 µL of blood	0.08 (0.001–0.34)	0.003 (0.00–0.01)*	0.014	0.017
KREC/100000 cells	582.37 (79.01–1486.39)	66.61 (11.41–136.92)*	0.007	0.016
KREC/WBC in 1 µL of blood	32.99 (6.06–126.45)	4.58 (1.05–18.72)*	0.014	0.017
KREC/lymphocytes in 1 µL of blood	10.19 (0.83–38.10)	0.54 (0.11–0.71)*	0.003	0.016

The data are presented as median and interquartile range (10–90th percentiles). *p*-values for the differences between survivors and non-survivors were obtained from Mann-Whitney U test. *–median and (25–75th) percentiles.

Table S4. Correlation of TREC/KREC levels and NLR.

Correlation Pairs	<i>n</i>	Spearman's ρ	<i>p</i> -Value
NLR & TREC/100000 cells	34	–0.726	0.000001
NLR & TREC/WBC in 1µL of blood	34	–0.595	0.000206
NLR & TREC/lymphocytes in 1µL of blood	34	–0.701	0.000004
NLR & KREC/100000 cells	34	–0.579	0.000330
NLR & KREC/WBC in 1µL of blood	34	–0.391	0.022390
NLR & KREC/lymphocytes in 1µL of blood	34	–0.691	0.000006
Missing	2		

n is the total number of patients with available data.