



Research article

Exploring immune response and lab markers across COVID-19 severity levels

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Supplementary

Table S1. Covid-19 patient characteristics depending on the gender of the participants.

Parameters	Males (n = 22)	Females (n = 23)	<i>P</i>
Age, Me (Q25; Q75)	57.5 (51.25; 64)	63 (61; 78)	=0.007
Days from onset of disease, Me (Q25; Q75)	7.00 (6.00; 10.00)	7.00 (5.00; 8.00)	>0.05
Positive PCR test for SARS-Cov-2 on day of admission to hospital	8 (36.4%)	10 (43.5%)	>0.05
Viremia	6 (26.1%)	6 (27.3%)	>0.05
Comorbidities:			
arterial hypertension	9 (40.9%)	16 (69.64%)	=0.004
diabetes	1 (4.55%) (4.55%)	3 (13%)	>0.05
chronic pulmonary disorders		1 (4.4%)	>0.05
Lethal outcome	5 (22.7%)	9 (39.1%)	>0.05
S-IgG (mean ± SEM)	6.7 ± 0.5	6.3 ± 0.4	>0.05
S-IgG1 (mean ± SEM)	6.2 ± 0.7	7.6 ± 0.6	>0.05
S-IgG2 (mean ± SEM)	5.1 ± 0.5	4.8 ± 0.4	>0.05
S-IgG3 (mean ± SEM)	7.5 ± 0.6	8.5 ± 0.4	>0.05
S-IgG4 (mean ± SEM)	6.2 ± 0.5	6.14 ± 0.4	>0.05
N-IgG (mean ± SEM)	6.3 ± 0.8	6.19 ± 0.8	>0.05
N-IgG1 (mean ± SEM)	4.9 ± 0.7	5.0 ± 0.7	>0.05
N-IgG2 (mean ± SEM)	3.6 ± 0.5	4.2 ± 0.6	>0.05
N-IgG3 (mean ± SEM)	2.9 ± 0.3	3.6 ± 0.6	>0.05
N-IgG4 (mean ± SEM)	4.7 ± 0.7	4.9 ± 0.6	>0.05
CRP(0.00–5.00) mg/L Mean ± SEM	145.8 ± 29.3	127.8 ± 21.0	>0.05
NLR (1.13–3.79) units Mean ± SEM	7.6 ± 0.9	6.9 ± 0.9	>0.05
Fibrinogen (2.00–4.00) mg/L Mean ± SEM	5.9 ± 2.3	7.1 ± 1.0	>0.05
Histamine nm/mL Mean ± SEM	14.7 ± 5.7	21.1 ± 5.0	=0.05

Table S2. Covid-19 patient characteristics depending on the age of the participants.

Parameters	<60 years old (n = 19)	≥60 years old (n = 26)	P
Days from onset of disease. Me (Q25; Q75)	8.0 (6.8; 9.5)	6.5 (4.75; 8.5)	=0.1
Positive PCR test for SARS-Cov-2 on day of admission to hospital	9 (47.4)	9 (34.6)	>0.05
Viremia	4 (21.1)	8 (30.8)	>0.05
Comorbidities:	5 (26.3)	17 (65.4)	=0.016
Lethal outcome	5 (26.3)	10 (38.5)	>0.05
S-IgG (mean ± SEM)	6.0 (6.0; 8.0)	7.0 (6.0; 8.0)	>0.05
S-IgG1 (mean ± SEM)	7.3 (5.3; 11.3)	6.3 (3.3; 8.3)	>0.05
S-IgG2 (mean ± SEM)	3.3 (3.3; 7.3)	5.3 (3.3; 7.3)	>0.05
S-IgG3 (mean ± SEM)	9.3 (7.3; 9.3)	9.3 (7.3; 9.3)	>0.05
S-IgG4 (mean ± SEM)	7.3 (3.3; 7.3)	7.3 (5.3; 7.3)	>0.05
N-IgG (mean ± SEM)	3.3 (3.3; 11.3)	3.3 (3.3; 9.8)	>0.05
N-IgG1 (mean ± SEM)	3.3 (2.3; 9.3)	2.3 (2.3; 9.3)	>0.05
N-IgG2 (mean ± SEM)	2.3 (2.3; 5.3)	2.3 (2.3; 3.1)	>0.05
N-IgG3 (mean ± SEM)	2.3 (2.3; 3.3)	2.3 (2.3; 2.3)	>0.05
N-IgG4 (mean ± SEM)	2.3 (2.3; 7.3)	3.8 (2.3; 7.3)	>0.05
CRP(0.00–5.00) mg/L Mean ± SEM	74.5 (25.6; 127.3)	109.7 (83.1; 259.2)	=0.03
NLR (1.13–3.79 units) Mean ± SEM	5.6 (3.7; 11.8)	5.9 (3.8; 9.6)	>0.05
Fibrinogen (2.00–4.00) mg/L Mean ± SEM	6.0 (4.8; 6.9)	6.1 (5.2; 7.4)	>0.05
Histamine nm/mL Mean ± SEM	8.0 (6.8; 9.5)	6.5 (4.8; 8.5)	>0.05

Table S3. Correlation P-values.

	S-IgG	S-IgG1	S-IgG2	S-IgG3	S-IgG4	N-IgG	N-IgG1	N-IgG2	N-IgG3	N-IgG4	CRP	NLR	Fibrinogen	Histamine	Days	Outcome	PCR+	Viremia	Degree
S-IgG		0.027	0.964	0.222	0.340	0.066	0.752	0.949	0.414	0.068	0.482	0.902	0.178	0.019	0.869	0.441	0.793	0.989	0.442
S-IgG1	0.027		0.873	0.005	0.029	0.726	0.634	0.659	0.372	0.319	0.032	0.103	0.005	0.433	0.206	0.451	0.552	0.192	0.248
S-IgG2	0.964	0.873		0.079	0.167	0.172	0.184	0.005	0.351	0.011	0.670	0.503	0.714	0.957	0.033	0.136	0.112	0.959	0.273
S-IgG3	0.222	0.005	0.079		0.007	0.805	0.324	0.380	0.645	0.838	0.756	0.497	0.168	0.285	0.627	0.088	0.245	0.491	0.802
S-IgG4	0.340	0.029	0.167	0.007		0.021	0.075	0.786	0.287	0.464	0.912	0.925	0.222	0.797	0.296	0.609	0.895	0.393	0.544
N-IgG	0.066	0.726	0.172	0.805	0.021		0.001	0.025	0.740	0.000	0.705	0.373	0.738	0.732	0.457	0.028	0.349	0.410	0.422
N-IgG1	0.752	0.634	0.184	0.324	0.075	0.001		0.219	0.042	0.004	0.778	0.622	0.228	0.830	0.811	0.002	0.004	0.041	0.256
N-IgG2	0.949	0.659	0.005	0.380	0.786	0.025	0.219		0.237	0.000	0.601	0.159	0.447	0.205	0.933	0.104	0.194	0.752	0.112
N-IgG3	0.414	0.372	0.351	0.645	0.287	0.740	0.042	0.237		0.198	0.838	0.757	0.607	0.798	0.260	0.342	0.378	0.554	0.306
N-IgG4	0.068	0.319	0.011	0.838	0.464	0.000	0.004	0.000	0.198		0.962	0.883	0.612	0.347	0.194	0.085	0.153	0.398	0.668
CRP	0.482	0.032	0.670	0.756	0.912	0.705	0.778	0.601	0.838	0.962		0.005	0.001	0.512	0.519	0.015	0.982	0.007	0.001
NLR	0.902	0.103	0.503	0.497	0.925	0.373	0.622	0.159	0.757	0.883	0.005		0.016	0.285	0.872	0.002	0.134	0.125	0.000
Fibrinogen	0.178	0.005	0.714	0.168	0.222	0.738	0.228	0.447	0.607	0.612	0.001	0.016		0.627	0.948	0.831	0.657	0.009	0.012
Histamine	0.019	0.433	0.957	0.285	0.797	0.732	0.830	0.205	0.798	0.347	0.512	0.285	0.627		0.939	0.158	0.732	0.950	0.130
Days	0.869	0.206	0.033	0.627	0.296	0.457	0.811	0.933	0.260	0.194	0.519	0.872	0.948	0.939		0.759	0.107	0.628	0.539
Outcome	0.441	0.451	0.136	0.088	0.609	0.028	0.002	0.104	0.342	0.085	0.015	0.002	0.831	0.158	0.759		0.205	0.486	0.000
PCR+	0.793	0.552	0.112	0.245	0.895	0.349	0.004	0.194	0.378	0.153	0.982	0.134	0.657	0.732	0.107	0.205		0.894	0.205
Viremia	0.989	0.192	0.959	0.491	0.393	0.410	0.041	0.752	0.554	0.398	0.007	0.125	0.009	0.950	0.628	0.486	0.894		0.263
Degree	0.442	0.248	0.273	0.802	0.544	0.422	0.256	0.112	0.306	0.668	0.001	0.000	0.012	0.130	0.539	0.000	0.205	0.263	

