

<i>Group</i>	<i>Disease</i>	<i>N</i>	<i>Age (yrs)</i>	<i>Female, n (%)</i>	<i>Non- white ethnicity , n (%)</i>	<i>Days from symptom onset</i>	<i>Prior known autoimmune disease n (%)</i>	<i>Survived, n (%)</i>
1	Non-COVID-19 (severe, acute, ITU admission)	32	62.0 (49.0- 74.0)	15 (47)	7 (22)	n/a	4 (13)	22 (69)
2	COVID-19 (severe, acute, ITU admission)	25	55.0 (49.50 -62.00)	4 (16)	12 (48)	20 (14.0- 23.5)	3 (12)	17 (68)
3	COVID-19 (prior ITU admission, recovered)	35	54.0 (47.0- 62.0)	6 (17)	17 (49)	151 (117-204)	3 (9)	35 (100)
4	COVID-19 (ambulatory non- hospitalised recovered)	24	45.0 (35.25- 50.75)	18 (75)	8 (33)	38 (32.0- 44.5)	0 (0)	24 (100)

Table 1: Demographics of study groups

Median and interquartile ranges are provided for continuous variables. Participants in group 4 correspond to individuals with scores of 1 or 2 on the WHO COVID-19 ordinal severity scale. Participants in group 2 correspond to individuals with scores of >5 on the WHO COVID-19 ordinal severity scale.

Table 2: Prevalence of tissue specific autoantibodies in study groups

Tissue	Isotype	Group 1 (Acute, non-COVID-19, ITU)			Group 2 (Acute COVID-19, ITU)			Group 3 (Convalescent, COVID-19, post ITU)			Group 4 (Convalescent, COVID-19, non-hospitalised)		
		Positive	Total	%	Positive	Total	%	Positive	Total	%	Positive	Total	%
Adrenal	IgG	1	28	3.6	0	22	0.0	0	36	0.0	0	24	0.0
Autoimmune encephalitis screen	IgG	2	21	9.5	1	25	4.0	0	36	0.0	0	24	0.0
ANA	IgG	3	30	10.0	4	25	16.0	1	36	2.8	0	24	0.0
ANCA	IgG	1 #	30	3.3	2	25	8.0	3	36	8.3	2	24	8.3
Cardiac	IgG	2	21	9.5	1	14	7.1	10	36	27.8***	0	24	0.0
Endomysial	IgA	0 ##	30	0.0	0 ###	22	0.0	0	36	0.0	0	24	0.0
Epidermal (IC)	IgG	3	30	10.0	9	22	40.9*	7	36	19.4	6	24	25.0
Epidermal (BM)	IgG	0	30	0.0	0	22	0.0	3	36	8.3	0	24	0.0
Islet cell antibodies	IgG	1	26	3.8	0	25	0.0	1	36	2.8	0	24	0.0
Purkinje cell antibodies	IgG	0	25	0.0	1 ££	22	4.5	0 £	36	0.0	0	24	0.0
Smooth muscle antibodies	IgG	2	27	7.4	0	25	0.0	11	36	30.6\$	4	24	16.7
Gastric parietal cell antibodies	IgG	2	27	7.4	0	25	0.0	0	36	0.0	1	24	4.2
Skeletal muscle antibodies	IgG	1	25	4.0	4	24	16.7	7	36	19.4**	0	24	0.0

* p=0.01 (Group 2 vs Group 4), ** p=0.02 (Group 2 vs Group 3), *** p=0.005 (Group 3 vs Group 4)

\$ p = 0.006 (Chi Square comparing all groups)

- patient with known Granulomatosis with polyangiitis (cANCA positive)

- 2 patients demonstrated positive IgA intercellular antibody pattern despite being negative for endomysial antibodies

- 8 patients demonstrated positive IgA intercellular antibody pattern despite being negative for endomysial antibodies

£ - 1 patient had intense molecular layer staining and 1 patient had white matter layer staining – both patterns do not have known disease association

££ - patient had positive SOX-1 staining pattern

