

Supplementary data

Table S1. SARS-CoV-2 ELISA (enzyme-linked immunoassay) and MNT (microneutralisation test) result in different age groups among dogs living in COVID-19 positive households.

Age (years)	Number of tested samples	Number of ELISA positive	OR ^a (95% CI ^b)	P	Number of MNT ^c positive	OR (95% CI)	P
<1	7	1	0.17 (0.01 – 0.98)	-	1	0.17 (0.01 – 0.98)	-
1 – 4	22	14	10.5 (1.44 – 27.82)	0.04*	7	2.80 (0.37 – 58.21)	0.38
5+	46	18	3.86 (0.59 – 76.05)	0.23	11	1.89 (0.28 – 37.65)	0.58

Note: Logistic regression was used to calculate OR with dogs under one year of age used as the reference category. ^aOR - odds ratio, ^bCI - confidence interval, * - statistically significant

Table S2. Breed predisposition to SARS-CoV-2 infection.

Clades of breeds	Number of tested samples	Number of ELISA ^a positive samples (%)	Seroprevalence 95% CI ^b (%)	OR ^c	OR 95%CI	P
Mix breed	312	50 (16.03)	12.13 – 20.58	0.19	0.14 - 0.26	-
Alpine	8	1 (12.5)	0.32 – 52.65	1.04	0.11 – 4.91	0.97
American Toy	11	0	NA	0.23	0 – 1.78	0.2
Asian Spitz	36	5 (13.89)	4.67 – 29.5	0.91	0.31 – 2.2	0.84
Asian Toy	60	9 (15)	7.1 – 26.57	0.96	0.43 – 1.96	0.91
Continental Herder	23	9 (39.13)	19.71 – 61.46	3.40	1.38 – 8.06	0.01*
Drover	12	3 (25)	5.49 – 57.19	1.92	0.47 – 6.28	0.34
European Mastiff	114	11 (9.65)	4.92 – 16.61	0.58	0.28 – 1.1	0.1
New World	33	5 (15.15)	5.11 – 31.9	1	0.35 – 2.45	0.99
Pointer Setter	30	6 (20)	7.71 – 38.57	1.38	0.51 – 3.27	0.5
Poodle	100	11 (11)	5.62 – 18.83	0.67	0.32 – 1.28	0.23
Retriever	66	8 (12.12)	5.38 – 22.49	0.76	0.33 – 1.57	0.47
Samoyed	8	0	NA	0.31	0 – 2.52	0.33
Scent Hound	13	1 (7.69)	0.19 – 36.03	0.62	0.07 – 2.67	0.57
Schnauzer	19	4 (21.05)	6.05 – 45.57	1.51	0.45 – 4.19	0.48
Small Spitz	22	2 (9.09)	1.12 – 29.16	0.63	0.12 – 2.07	0.48
Spaniel	37	3 (8.11)	1.7 – 21.91	0.53	0.14 – 1.46	0.24
Terrier	78	10 (12.82)	6.32 – 22.32	0.8	0.37 – 1.57	0.53
Tibetan terrier	2	0	NA	1.04	0 – 13.03	0.98
Toy Spitz	13	3 (23.08)	5.04 – 53.81	1.73	0.43 – 5.56	0.41
UK rural	22	2 (9.09)	1.12 – 19.16	0.63	0.12 – 2.07	0.48

Note: Breeds were grouped in phylogenetic clades [11]. For 72 samples, there was no breed data, and they were excluded from the analysis (n=997). Logistics regression was used to calculate odds ratio values with "Mix breed" as reference. ^aELISA – enzyme-linked immunoassay, ^bCI – confidence interval, ^cOR – odds ratio, * - statistically significant

Table S3. The interaction between age and CNS symptoms in the logistic regression model.

Age	CNS ^a symptoms				OR ^c	OR 95%CI ^d	P (Fisher's exact test)
	Present		Absent				
	No of samples	No of ELISA ^b positive	No of samples	No of ELISA ^b positive			
<1	1	0	46	3	4.14	0.14 – 121.78	1
1	7	1	67	12	0.76	0.08 – 6.94	1
2	4	0	57	9	0.46	0.02 – 9.11	0.58
3	6	1	56	9	1.04	0.11 – 10.03	1
4	0	0	51	8	5.12	0.09 – 276.15	1
5	4	0	45	11	0.33	0.02 – 6.68	0.56
6	7	4	47	8	6.5	1.21 – 34.85	0.04*
7	7	1	80	9	1.31	0.14 – 12.2	0.59
8	5	0	47	4	0.88	0.04 – 18.62	1
9	4	1	64	7	2.71	0.25 – 29.78	0.4
10	1	1	72	11	16.04	0.61 – 418.75	0.1
11	2	2	81	5	69.55	2.96 – 1634.71	0.01*
12	2	1	63	9	6	0.34 – 104.79	0.29
13	3	1	37	5	6.4	0.34 – 119.58	0.29
14	1	0	39	1	8.56	0.24 – 310.72	1
15+	5	2	34	6	3.11	0.42 – 22.87	0.27

Note: ^aCNS – central nervous system, ^bELISA – enzyme-linked immunoassay, ^cOR- odds ratio, ^dCI - confidence interval.

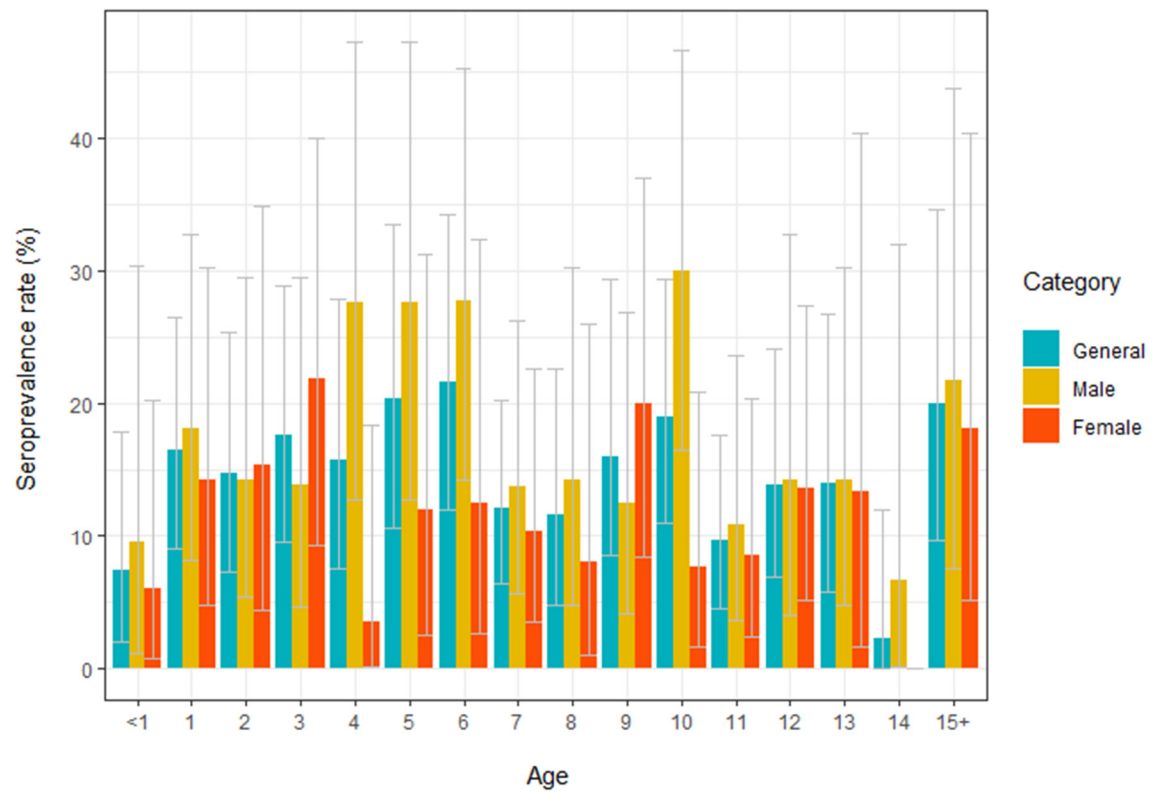


Figure S1. Age and sex distribution of SARS-CoV-2 ELISA positive dogs. Error bars represent a 95% confidence interval.