COVID Monkeys

HRV Analysis

August 19, 2020

Introduction

- ECG analysis of monkeys with COVID
- HRV performed of available signal
- Monkeys all have SARS-CoV2 infection, half were treated with anti-inflammatories

Quality of Signal Processing Efforts

Table 1: Best quality per session/lead

session	name	visit	lead	tot_wind	percent_not_analyzed
1	RAt11	1	LII	58	0.0
2	06_112	1	NA	NA	NA
3	RAt11	2	LII	58	19.0
4	06_112	2	LII	52	71.2
5	RAt11	3	LII	58	27.6
6	06_112	3	LII	58	48.3
7	06_112	4	aVF	30	0.0
8	RAt11	4	LI	70	24.3
9	5_215	1	aVF	18	0.0
10	RQv9	1	aVF	54	0.0
11	RLf10	1	aVF	37	2.7
12	06_112	5	aVF	127	0.0
13	RAt11	5	aVL	135	0.0
14	5_215	2	aVL	72	0.0
15	RQv9	2	aVF	57	0.0
16	RLf10	2	aVF	121	0.0
17	RLf10	3	aVF	73	0.0
18	RQv9	3	aVF	42	0.0
19	RQv9	4	aVF	75	0.0

HRV Findings

session	NN	SDNN	RMSSD	PNN50	HF	LF	APEN
1	341	13.06	4.96	0.000	59.17	249.83	0.575
3	323	11.75	15.89	3.951	45.58	59.66	0.744
4	326	19.95	31.74	15.081	59.62	54.85	0.665
5	349	8.25	9.50	1.266	22.37	24.90	0.720
6	342	16.82	25.47	8.304	73.46	48.28	0.567
7	370	8.91	6.88	0.243	17.30	26.60	1.117
8	430	7.25	6.24	0.208	9.60	30.01	1.028
9	402	22.85	11.99	0.938	190.18	252.91	0.637
10	449	12.77	10.18	1.546	53.81	35.00	0.918
11	435	11.75	17.69	3.841	26.56	9.63	0.991
12	323	5.83	6.43	0.075	13.36	12.36	1.142
13	430	22.96	16.41	6.546	80.51	276.18	0.790
14	339	9.61	8.77	0.477	20.89	39.87	1.079
15	440	22.76	12.55	1.094	24.47	108.38	0.814
16	434	7.94	6.28	0.285	4.25	10.21	0.930
17	485	11.86	6.07	0.079	9.21	36.98	0.919
18	444	10.17	8.28	0.323	40.60	49.93	0.981
19	474	27.42	17.03	3.251	68.92	289.17	0.712

HRV over Repeat Sessions