**SUPPLEMENTARY MATERIAL**



**Supplementary figure 1.** Angiogenesis was measured by vascular density and vessel length density using the software ImageJ with the plugin Vessels Analysis 58. The CE was inoculated at 3 EID and evaluated at 12 EID. A. vascular density, B. vessel length density, C. Photos CAM (NC), D. Photo CAM treated with DX, D. Photo CAM treated with FG (150µg/CE), E. Photo CAM treated with FG (750µg/CE), F. Photo CAM treated with FG (3.75mg/CE)

**Supplementary table 1.** Maximum and minimum values and median of hematological analysis from CE infected with *Gammacoronavirus* and NC.

|  |  |  |
| --- | --- | --- |
|  | Virus | NC |
|  | Minimum | Maximum | Median | Minimum | Maximum | Median |
| Hc | 13 | 18 | 15 | 19 | 23 | 21 |
| Hb 1/3Hc | 4.33 | 6.00 | 5.00 | 6.33 | 7.67 | 7.00 |
| Hb Cyanmetemoglobin | 5.02 | 7.39 | 6.60 | 7.70 | 8.23 | 8.09 |
| Erithrocytes | 1220000 | 1790000 | 1680000 | 1900000 | 2240000 | 2020000 |
| MCV | 80.81 | 121.10 | 92.99 | 83.33 | 147.50 | 87.21 |
| MCH | 32.37 | 42.74 | 37.70 | 29.88 | 58.28 | 38.40 |
| MCHC | 35.00 | 47.06 | 39.53 | 35.86 | 44.13 | 39.60 |
| Leukocytes | 3500 | 54000 | 6000 | 5500 | 11000 | 7750 |
| Heterophils | 3325 | 45360 | 5640 | 5280 | 10340 | 6788 |
| Limphocytes | 70 | 6480 | 180 | 120 | 1710 | 385 |
| Monocytes | 0 | 1080 | 70 | 0 | 110 | 0 |
| Eosinophils | 0 | 0 | 0 | 0 | 0 | 0 |
| Thrombocytes | 9000 | 51500 | 19000 | 18000 | 29500 | 20500 |

**Supplementary table 2.** Maximum and minimum values and median of metabolites and minerals from the serum and allantoic of CE from CE infected with *Gammacoronavirus* and NC.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | Serum | Allantoic |
|  |  | Virus | NC | Virus | NC |
| UA | Minimum | 4.24 | 1.27 | 7.15 | 1.27 |
| Maximum | 36.94 | 50.07 | 85.39 | 50.07 |
| Median | 24.67 | 17.85 | 56.93 | 11.39 |
| Creat | Minimum | 0.19 | 0.26 | 0.33 | 1.63 |
| Maximum | 0.96 | 2.94 | 2.75 | 4.92 |
| Median | 0.435 | 1.235 | 1.05 | 3.155 |
| ALP | Minimum | 235.7 | 736.5 | 18.2 | 58.2 |
| Maximum | 3845 | 3388 | 123.1 | 82.9 |
| Median | 2476 | 1651 | 24.1 | 68.1 |
| GGT | Minimum | 10.2 | 77.4 | 40 | 58 |
| Maximum | 136 | 356 | 434 | 346 |
| Median | 89.6 | 288 | 183 | 166 |
| ALT | Minimum | 24 | 40 | 20 | 20 |
| Maximum | 100 | 220 | 120 | 80 |
| Median | 53 | 54 | 60 | 40 |
| AST | Minimum | 54 | 120 | 120 | 220 |
| Maximum | 560 | 780 | 380 | 920 |
| Median | 221 | 452 | 150 | 640 |
| Ca | Minimum | 2.5 | 20.5 | 4.4 | 10.4 |
| Maximum | 21.5 | 146.4 | 39 | 34.2 |
| Median | 8.45 | 118.8 | 14.2 | 15.8 |
| P | Minimum | 2.7 | 1.4 | 2.5 | 11.6 |
| Maximum | 8.4 | 9.7 | 18.3 | 29.4 |
| Median | 5.45 | 8.1 | 8.7 | 17.7 |
| CRP | Minimum | 10.8 | 15 | 26 | 40 |
| Maximum | 35.4 | 38 | 100 | 152 |
| Median | 26 | 23 | 56 | 86 |

**Supplementary table 3.** Maximum and minimum values and median of hematological analysis from CE treated with FG and DX at 10 EID and their respective NC.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | NC | DX | NC | FG |
|  | Minimum | Maximum | Median | Minimum | Maximum | Median | Minimum | Maximum | Median | Minimum | Maximum | Median |
| Hc | 17.0 | 22.0 | 20.5 | 13.0 | 21.0 | 17.5 | 19.0 | 28.0 | 21.0 | 14.0 | 25.0 | 17.0 |
| Hb 1/3Hc | 5.67 | 7.33 | 6.84 | 4.33 | 7.00 | 5.84 | 6.33 | 9.33 | 7.00 | 4.67 | 8.33 | 5.67 |
| Hb Drabkin | 6.48 | 8.75 | 7.86 | 5.16 | 8.75 | 7.38 | 7.08 | 9.17 | 8.09 | 5.58 | 9.76 | 7.76 |
| Erithrocytes | 1730000 | 2530000 | 2012500 | 1205000 | 1940000 | 1537500 | 1125000 | 2600000 | 1772500 | 1135000 | 1995000 | 1760000 |
| MCV | 86.96 | 112.50 | 98.78 | 95.74 | 135.30 | 108.10 | 92.39 | 125.30 | 104.20 | 76.92 | 195.60 | 138.80 |
| MCH | 34.58 | 40.91 |  | 40.98 | 64.00 |  | 31.24 | 75.29 | 48.04 | 36.19 | 50.04 | 44.19 |
| MCHC | 35.00 | 41.63 | 39.04 | 37.56 | 47.45 | 42.71 | 32.75 | 42.70 | 37.63 | 38.15 | 49.21 | 39.63 |
| Leukocytes | 1000 | 5000 | 4000 | 500 | 7500 | 2500 | 2000 | 8500 | 3000 | 500 | 8500 | 3250 |
| Heterophils | 980 | 4500 | 3600 | 495 | 6300 | 2300 | 1780 | 8160 | 2880 | 475 | 7735 | 3218 |
| Limphocytes | 20 | 810 | 210 | 5 | 1200 | 200 | 60 | 340 | 120 | 25 | 640 | 150 |
| Monocytes | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 85 | 0 |
| Eosinophils | 0 | 45 | 0 | 0 | 210 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Thrombocytes | 11500 | 22500 | 14000 | 1000 | 15500 | 8500 | 5750 | 34000 | 14250 | 2500 | 39500 | 7000 |

**Supplementary table 4.** Maximum and minimum values and median of metabolites and minerals from the serum and allantoic of CE treated with FG and DX inoculated at 10 EID and their respective NC.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  | Serum | Allantoic | Serum | Allantoic |
|  |  | NC | DX | NC | DX | NC | FG | NC | FG |
| UA | Minimum | 1.83 | 0.63 | 17.52 | 0.76 | 2.53 | 2.64 | 33.65 | 17.46 |
| Maximum | 32.13 | 22.8 | 115.4 | 129.9 | 22.15 | 38.71 | 127.8 | 174.7 |
| Median | 10.82 | 12.21 | 53.24 | 76.43 | 9.835 | 7.98 | 109.4 | 82.23 |
| Creat | Minimum | 0.15 | 0.12 | 2.7 | 1.1 | 0.41 | 0.28 | 1.81 | 2.16 |
| Maximum | 1.08 | 3.06 | 4.26 | 5.67 | 2.34 | 1.98 | 4.29 | 4.65 |
| Median | 0.51 | 0.695 | 3.735 | 2.18 | 1.14 | 0.51 | 2.16 | 3.01 |
| ALP | Minimum | 562.6 | 904.1 | 9.1 | 21.5 | 1114 | 1830 | 8.5 | 9.8 |
| Maximum | 4157 | 17399 | 130.9 | 150.8 | 3110 | 2661 | 98 | 126.3 |
| Median | 2460 | 2263 | 31.9 | 75 | 1404 | 2473 | 39.1 | 35.8 |
| GGT | Minimum | 5.1 | 2.4 | 1.3 | 4.3 | 3.1 | 1.1 | 7.4 | 4.7 |
| Maximum | 229 | 232 | 27 | 31 | 228 | 204 | 22.9 | 21 |
| Median | 14.4 | 16.4 | 8.35 | 17.8 | 33.3 | 28 | 13.95 | 12.9 |
| ALT | Minimum | 14.8 | 25.8 | 6 | 2 | 5.6 | 6.2 | 2 | 2 |
| Maximum | 437.9 | 428 | 10 | 21 | 118 | 364 | 15 | 29 |
| Median | 71.4 | 123 | 8 | 14.5 | 41.95 | 145.8 | 8 | 10 |
| AST | Minimum | 11.7 | 39 | 5.9 | 6 | 15 | 39.8 | 3.2 | 4 |
| Maximum | 63 | 200.4 | 31 | 20.8 | 74.4 | 71.5 | 31.1 | 17.9 |
| Median | 38.8 | 79.2 | 16 | 14 | 61.8 | 42.7 | 12.6 | 6 |
| Ca | Minimum | 3.1 | 5.6 | 3.4 | 0.8 | 2.6 | 3.6 | 6.3 | 2.6 |
| Maximum | 30.6 | 94.2 | 10.2 | 41.6 | 40 | 60 | 25.3 | 14.7 |
| Median | 5.3 | 20.9 | 5.8 | 12.1 | 16.9 | 9.8 | 10.04 | 6.3 |
| P | Minimum | 1.79 | 0.28 | 15.6 | 16.1 | 2.34 | 2 | 4.7 | 11.1 |
| Maximum | 10.8 | 13.2 | 32.5 | 47.6 | 15.8 | 9 | 29.5 | 37.2 |
| Median | 3.94 | 4.03 | 23.4 | 20.8 | 7.8 | 4.525 | 15.4 | 22 |

**Supplementary Table 5.** Maximum and minimum values and median of metabolites and minerals from the serum of CE treated with FG and DX inoculated at 12 EID and NC.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | NC | FG | DX |
| UA | Minimum | 5.95 | 5.72 | 3.42 |
| Maximum | 10.5 | 30.18 | 28.8 |
| Median | 8.7 | 7.93 | 5.34 |
| Creat | Minimum | 0.32 | 0.19 | 0.71 |
| Maximum | 2.76 | 1.3 | 1.92 |
| Median | 1.62 | 0.42 | 1.47 |
| ALP | Minimum | 1754 | 2071 | 1528 |
| Maximum | 2566 | 2980 | 2391 |
| Median | 2200 | 2180 | 1896 |
| GGT | Minimum | 9.6 | 5.6 | 2.7 |
| Maximum | 104.4 | 164 | 108 |
| Median | 37.5 | 40.2 | 82.8 |
| ALT | Minimum | 4.3 | 10.6 | 49.4 |
| Maximum | 150 | 534 | 95.4 |
| Median | 58.2 | 22.5 | 75 |
| AST | Minimum | 57.9 | 65.9 | 124.3 |
| Maximum | 259.2 | 175.8 | 1319 |
| Median |  112.2 |  104.4 |  390.3 |
| Ca | Minimum | 9.7 | 4.1 | 5.9 |
| Maximum | 32.4 | 31.5 | 28.8 |
| Median | 13.8 | 21.3 | 9.9 |
| P | Minimum | 1.1 | 1.5 | 5.9 |
| Maximum | 11.4 | 9 | 13.2 |
| Median | 4.4 | 3.8 | 9.5 |

**Supplementary Table 6.** Maximum and minimum values and median of hematological analysis from CE treated with FG and DX at 12 EID and NC.

|  |  |  |  |
| --- | --- | --- | --- |
|  | NC | FG | DX |
|  | Minimum | Maximum | Median | Minimum | Maximum | Median | Minimum | Maximum | Median |
| Hc | 23 | 31 | 30 | 24 | 34 | 29 | 18 | 26 | 26 |
| Hb 1/3Hc | 7.67 | 10.33 | 10.00 | 8.00 | 11.33 | 9.67 | 6.67 | 8.67 | 8.67 |
| Hb Drabkin | 8.00 | 14.08 | 9.34 | 8.58 | 12.13 | 10.62 | 6.90 | 9.76 | 7.84 |
| Erithrocytes | 1900000 | 3210000 | 2550000 | 2020000 | 3020000 | 2745000 | 1600000 | 2290000 | 1860000 |
| MCV | 80.99 | 131.60 | 117.70 | 89.66 | 118.80 | 112.50 | 113.00 | 139.80 | 125.80 |
| MCH | 28.23 | 53.32 | 42.11 | 36.07 | 42.45 | 39.74 | 39.37 | 42.62 | 41.33 |
| MCHC | 31.14 | 45.43 | 34.86 | 31.14 | 43.58 | 35.55 | 30.17 | 37.54 | 32.87 |
| Leukocytes | 2500 | 5000 | 4250 | 2500 | 8000 | 4500 | 6000 | 30000 | 14000 |
| Heterophils | 2175 | 4500 | 3725 | 1800 | 7280 | 3893 | 5820 | 29700 | 15593 |
| Limphocytes | 325.0 | 650.0 | 427.5 | 315 | 720 | 571 | 140 | 500 | 220 |
| Monocytes | 0.0 | 100.0 | 47.5 | 0 | 100 | 75 | 0 | 0 | 0 |
| Eosinophils | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Thrombocytes | 4000 | 7500 | 5000 | 4000 | 7000 | 5750 | 6000 | 23500 | 15000 |