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| **Supplementary Material 2.** Correlation between parameters evaluated in the lung function test by spirometry and variables obtained during the volumetric capnography performed on a treadmill while performing submaximal exercise in patients with cystic fibrosis and healthy control subjects. |
| **Capnography** | **M** | **Statistic data** | **FVC (%)** |  **FEV1 (%)**  |  **FEV1/ FVC** |
| **All subjects** | **CFG** | **CG** | **All subjects** | **CFG** | **CG** | **All subjects** | **CFG** | **CG** |
| **Slope 3** | **1** | CC | -0.376\*\* | -0.315\* | -0.117 | -0.468\*\* | -0.338\*\* | -0.277\* | -0.237\*\* | -0.138 | 0.064 |
|  | Sig. (2 Two tailed test) | <0.001 | 0.011 | 0.359 | <0.001 | 0.006 | 0.027 | 0.007 | 0.276 | 0.616 |
|  | N | 128 | 64 | 64 | 128 | 64 | 64 | 128 | 64 | 64 |
|  | **2** | CC | -0.394\*\* | -0.411\*\* | -0.098 | -0.501\*\* | -0.471\*\* | -0.305\* | -0.282\*\* | -0.349\*\* | 0.039 |
|  | Sig. (2 Two tailed test) | <0.001 | 0.001 | 0.442 | <0.001 | <0.001 | 0.014 | 0.001 | 0.005 | 0.758 |
|  | N | 128 | 64 | 64 | 128 | 64 | 64 | 128 | 64 | 64 |
|  | **3** | CC | -0.365\*\* | -0.407\*\* | 0.098 | -0.455\*\* | -0.462\*\* | -0.124 | -0.294\*\* | -0.330\*\* | 0.152 |
|  | Sig. (2 Two tailed test) | <0.001 | 0.001 | 0.439 | <0.001 | <0.001 | 0.328 | 0.001 | 0.008 | 0.231 |
|  | N | 128 | 64 | 64 | 128 | 64 | 64 | 128 | 64 | 64 |
|  | **4** | CC  | -0.359\*\* | -0.354\*\* | -0.022 | -0.447\*\* | -0.388\*\* | -0.267\* | -0.284\*\* | -0.239 | 0.063 |
|  | Sig. (2 Two tailed test) | <0.001 | 0.004 | 0.861 | <0.001 | 0.002 | 0.033 | 0.001 | 0.057 | 0.624 |
|  | N | 128 | 64 | 64 | 128 | 64 | 64 | 128 | 64 | 64 |
|  | **5** | CC | -0.330\*\* | -0.236 | -0.026 | -0.445\*\* | -0.293\* | -0.245 | -0.249\*\* | -0.220 | 0.255\* |
|  | Sig. (2 Two tailed test) | <0.001 | 0.061 | 0.838 | <0.001 | 0.019 | 0.051 | 0.005 | 0.081 | 0.042 |
|  | N | 128 | 64 | 64 | 128 | 64 | 64 | 128 | 64 | 64 |
| **Slope 3/VT** | **1** | CC | -0.327\*\* | -0.256\* | -0.053 | -0.437\*\* | -0.273\* | -0.300\* | -0.201\* | -0.064 | 0.049 |
|  | Sig. (2 Two tailed test) | <0.001 | 0.041 | 0.675 | <0.001 | 0.029 | 0.016 | 0.023 | 0.616 | 0.699 |
|  | N | 128 | 64 | 64 | 128 | 64 | 64 | 128 | 64 | 64 |
|  | **2** | CC | -0.349\*\* | -0.378\*\* | -0.068 | -0.454\*\* | -0.428\*\* | -0.292\* | -0.206\* | -0.263\* | 0.110 |
|  | Sig. (2 Two tailed test) | <0.001 | 0.002 | 0.592 | <0.001 | <0.001 | 0.019 | 0.020 | 0.036 | 0.385 |
|  | N | 128 | 64 | 64 | 128 | 64 | 64 | 128 | 64 | 64 |
|  | **3** | CC | -0.328\*\* | -0.362\*\* | 0.083 | -0.422\*\* | -0.406\*\* | -0.164 | -0.232\*\* | -0.246 | 0.199 |
|  | Sig. (2 Two tailed test) | <0.001 | 0.003 | 0.512 | <0.001 | 0.001 | 0.194 | 0.008 | 0.051 | 0.115 |
|  | N | 128 | 64 | 64 | 128 | 64 | 64 | 128 | 64 | 64 |
|  | **4** | CC | -0.340\*\* | -0.327\*\* | -0.030 | -0.431\*\* | -0.351\*\* | -0.286\* | -0.213\* | -0.168 | 0.131 |
|  | Sig. (2 Two tailed test) | <0.001 | 0.008 | 0.811 | <0.001 | 0.004 | 0.022 | 0.016 | 0.185 | 0.304 |
|  | N | 128 | 64 | 64 | 128 | 64 | 64 | 128 | 64 | 64 |
|  | **5** | CC | -0.291\*\* | -0.146 | -0.032 | -0.409\*\* | -0.213 | -0.254\* | -0.209\* | -0.150 | 0.259\* |
|  | Sig. (2 Two tailed test) | 0.001 | 0.250 | 0.803 | <0.001 | 0.091 | 0.042 | 0.018 | 0.236 | 0.039 |
|  | N | 128 | 64 | 64 | 128 | 64 | 64 | 128 | 64 | 64 |
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| **Capnography** |  **M** | **Statistic data** | **All subjects** | **CFG** | **CG** | **All subjects** | **CFG** | **CG** | **All subjects** | **CFG** | **CG** |
| **Slope 3/PetCO2** | **1** | CC | -0.336\*\* | -0.341\*\* | 0.036 | -0.384\*\* | -0.351\*\* | -0.093 | -0.292\*\* | -0.177 | -0.119 |
|  | Sig. (2 Two tailed test) | <0.001 | 0.006 | 0.780 | <0.001 | 0.005 | 0.467 | 0.001 | 0.162 | 0.349 |
|  | N | 128 | 64 | 64 | 128 | 64 | 64 | 128 | 64 | 64 |
| **2** | CC | -0.435\*\* | -0.457\*\* | -0.131 | -0.525\*\* | -0.499\*\* | -0.313\* | -0.298\*\* | -0.346\*\* | 0.077 |
|  | Sig. (2 Two tailed test) | <0.001 | <0.001 | 0.302 | <0.001 | <0.001 | 0.012 | 0.001 | 0.005 | 0.543 |
|  | N | 128 | 64 | 64 | 128 | 64 | 64 | 128 | 64 | 64 |
| **3** | CC | -0.409\*\* | -0.438\*\* | 0.066 | -0.512\*\* | -0.503\*\* | -0.173 | -0.289\*\* | -0.228 | 0.092 |
|  | Sig. (2 Two tailed test) | <0.001 | <0.001 | 0.603 | <0.001 | <0.001 | 0.172 | 0.001 | 0.070 | 0.471 |
|  | N | 128 | 64 | 64 | 128 | 64 | 64 | 128 | 64 | 64 |
| **4** | CC | -0.361\*\* | -0.238 | -0.044 | -0.463\*\* | -0.280\* | -0.239 | -0.275\*\* | -0.230 | 0.278\* |
|  | Sig. (2 Two tailed test) | <0.001 | 0.058 | 0.730 | <0.001 | 0.025 | 0.058 | 0.002 | 0.068 | 0.026 |
|  | N | 128 | 64 | 64 | 128 | 64 | 64 | 128 | 64 | 64 |
| **5** | CC | -0.342\*\* | -0.327\*\* | 0.044 | -0.431\*\* | -0.353\*\* | -0.156 | -0.252\*\* | -0.134 | 0.133 |
|  | Sig. (2 Two tailed test) | <0.001 | 0.008 | 0.727 | <0.001 | 0.004 | 0.219 | 0.004 | 0.290 | 0.293 |
|  | N | 128 | 64 | 64 | 128 | 64 | 64 | 128 | 64 | 64 |
| **PetCO2** | **1** | CC | 0.242\*\* | 0.052 | 0.226 | 0.203\* | -0.010 | 0.233 | 0.079 | -0.058 | -0.125 |
|  | Sig. (2 Two tailed test) | 0.006 | 0.682 | 0.073 | 0.022 | 0.939 | 0.064 | 0.374 | 0.650 | 0.327 |
|  | N | 128 | 64 | 64 | 128 | 64 | 64 | 128 | 64 | 64 |
| **2** | CC | 0.392\*\* | 0.305\* | 0.251\* | 0.350\*\* | 0.223 | 0.266\* | 0.150 | -0.064 | -0.088 |
|  | Sig. (2 Two tailed test) | <0.001 | 0.014 | 0.045 | <0.001 | 0.076 | 0.034 | 0.091 | 0.613 | 0.491 |
|  | N | 128 | 64 | 64 | 128 | 64 | 64 | 128 | 64 | 64 |
| **3** | CC | 0.344\*\* | 0.267\* | 0.211 | 0.349\*\* | 0.198 | 0.338\*\* | 0.077 | -0.071 | -0.261\* |
|  | Sig. (2 Two tailed test) | <0.001 | 0.033 | 0.094 | <0.001 | 0.117 | 0.006 | 0.390 | 0.579 | 0.037 |
|  | N | 128 | 64 | 64 | 128 | 64 | 64 | 128 | 64 | 64 |
| **4** | CC | 0.281\*\* | 0.184 | 0.160 | 0.268\*\* | 0.096 | 0.289\* | 0.005 | -0.128 | -0.305\* |
|  | Sig. (2 Two tailed test) | 0.001 | 0.145 | 0.206 | 0.002 | 0.448 | 0.021 | 0.954 | 0.313 | 0.014 |
|  | N | 128 | 64 | 64 | 128 | 64 | 64 | 128 | 64 | 64 |
| **5** | CC | 0.232\*\* | 0.165 | -0.037 | 0.189\* | 0.124 | -0.135 | 0.130 | -0.032 | -0.074 |
|  | Sig. (2 Two tailed test) | 0.008 | 0.194 | 0.771 | 0.033 | 0.328 | 0.287 | 0.143 | 0.799 | 0.560 |
|  | N | 128 | 64 | 64 | 128 | 64 | 64 | 128 | 64 | 64 |
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| **Capnography** |  **M** | **Statistic data** | **All subjects** | **CFG** | **CG** | **All subjects** | **CFG** | **CG** | **All subjects** | **CFG** | **CG** |
| **EV** | **1** | CC | 0.032 | 0.121 | -0.266\* | 0.031 | 0.035 | -0.111 | 0.059 | -0.098 | 0.076 |
|  | Sig. (2 Two tailed test) | 0.724 | 0.339 | 0.034 | 0.726 | 0.784 | 0.381 | 0.510 | 0.443 | 0.553 |
|  | N | 128 | 64 | 64 | 128 | 64 | 64 | 128 | 64 | 64 |
| **2** | CC | 0.015 | 0.201 | -0.245 | 0.100 | 0.239 | 0.019 | 0.027 | 0.068 | 0.149 |
|  | Sig. (2 Two tailed test) | 0.867 | 0.111 | 0.051 | 0.263 | 0.057 | 0.884 | 0.758 | 0.594 | 0.240 |
|  | N | 128 | 64 | 64 | 128 | 64 | 64 | 128 | 64 | 64 |
| **3** | CC | 0.117 | 0.206 | -0.195 | 0.117 | 0.070 | 0.050 | 0.024 | -0.176 | 0.127 |
|  | Sig. (2 Two tailed test) | 0.188 | 0.103 | 0.123 | 0.188 | 0.585 | 0.692 | 0.788 | 0.164 | 0.319 |
|  | N | 128 | 64 | 64 | 128 | 64 | 64 | 128 | 64 | 64 |
| **4** | CC | 0.102 | 0.203 | -0.118 | 0.133 | 0.117 | 0.124 | -0.051 | -0.116 | -0.043 |
|  | Sig. (2 Two tailed test) | 0.251 | 0.107 | 0.355 | 0.134 | 0.357 | 0.329 | 0.570 | 0.363 | 0.737 |
|  | N | 128 | 64 | 64 | 128 | 64 | 64 | 128 | 64 | 64 |
| **5** | CC | 0.142 | 0.040 | 0.011 | 0.188\* | -0.035 | 0.253\* | 0.017 | -0.192 | -0.043 |
|  | Sig. (2 Two tailed test) | 0.111 | 0.751 | 0.934 | 0.034 | 0.781 | 0.043 | 0.845 | 0.129 | 0.735 |
|  | N | 128 | 64 | 64 | 128 | 64 | 64 | 128 | 64 | 64 |
| **VCO2** | **1** | CC | 0.203\* | 0.279\* | -0.253\* | 0.242\*\* | 0.211 | -0.039 | 0.205\* | 0.026 | 0.095 |
|  | Sig. (2 Two tailed test) | 0.022 | 0.025 | 0.044 | 0.006 | 0.094 | 0.761 | 0.020 | 0.836 | 0.455 |
|  | N | 128 | 64 | 64 | 128 | 64 | 64 | 128 | 64 | 64 |
| **2** | CC | 0.255\*\* | 0.330\*\* | -0.054 | 0.307\*\* | 0.339\*\* | 0.092 | 0.174\* | 0.196 | -0.090 |
|  | Sig. (2 Two tailed test) | 0.004 | 0.008 | 0.674 | <0.001 | 0.006 | 0.469 | 0.049 | 0.121 | 0.481 |
|  | N | 128 | 64 | 64 | 128 | 64 | 64 | 128 | 64 | 64 |
| **3** | CC | 0.329\*\* | 0.365\*\* | -0.043 | 0.340\*\* | 0.236 | 0.188 | 0.161 | -0.049 | 0.084 |
|  | Sig. (2 Two tailed test) | <0.001 | 0.003 | 0.737 | <0.001 | 0.060 | 0.137 | 0.069 | 0.698 | 0.511 |
|  | N | 128 | 64 | 64 | 128 | 64 | 64 | 128 | 64 | 64 |
| **4** | CC | 0.314\*\* | 0.311\* | -0.030 | 0.312\*\* | 0.180 | 0.207 | 0.060 | -0.089 | -0.149 |
|  | Sig. (2 Two tailed test) | <0.001 | 0.012 | 0.813 | <0.001 | 0.155 | 0.100 | 0.498 | 0.485 | 0.240 |
|  | N | 128 | 64 | 64 | 128 | 64 | 64 | 128 | 64 | 64 |
| **5** | CC | 0.274\*\* | 0.167 | 0.040 | 0.328\*\* | 0.141 | 0.211 | 0.155 | -0.040 | -0.055 |
|  | Sig. (2 Two tailed test) | 0.002 | 0.188 | 0.753 | <0.001 | 0.265 | 0.094 | 0.081 | 0.751 | 0.666 |
|  | N | 128 | 64 | 64 | 128 | 64 | 64 | 128 | 64 | 64 |
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| **Capnography** |  **M** | **Statistic data** | **All subjects** | **CFG** | **CG** | **All subjects** | **CFG** | **CG** | **All subjects** | **CFG** | **CG** |
| **VCO2/BMI** | **1** | CC | 0.011 | 0.161 | -0.268\* | 0.009 | 0.097 | -0.142 | 0.145 | 0.033 | 0.326\*\* |
|  | Sig. (2 Two tailed test) | 0.899 | 0.204 | 0.033 | 0.918 | 0.444 | 0.262 | 0.102 | 0.794 | 0.009 |
|  | N | 128 | 64 | 64 | 128 | 64 | 64 | 128 | 64 | 64 |
| **2** | CC | 0.109 | 0.258\* | -0.024 | 0.111 | 0.270\* | -0.001 | 0.114 | 0.175 | 0.148 |
|  | Sig. (2 Two tailed test) | 0.219 | 0.040 | 0.848 | 0.211 | 0.031 | 0.992 | 0.200 | 0.167 | 0.243 |
|  | N | 128 | 64 | 64 | 128 | 64 | 64 | 128 | 64 | 64 |
| **3** | CC | 0.218\* | 0.318\* | -0.031 | 0.166 | 0.159 | 0.085 | 0.104 | -0.086 | 0.284\* |
|  | Sig. (2 Two tailed test) | 0.014 | 0.010 | 0.809 | 0.060 | 0.209 | 0.505 | 0.242 | 0.498 | 0.023 |
|  | N | 128 | 64 | 64 | 128 | 64 | 64 | 128 | 64 | 64 |
| **4** | CC | 0.211\* | 0.280\* | -0.020 | 0.162 | 0.136 | 0.085 | 0.006 | -0.107 | 0.027 |
|  | Sig. (2 Two tailed test) | 0.017 | 0.025 | 0.877 | 0.067 | 0.285 | 0.504 | 0.943 | 0.400 | 0.830 |
|  | N | 128 | 64 | 64 | 128 | 64 | 64 | 128 | 64 | 64 |
| **5** | CC | 0.173 | 0.089 | -0.013 | 0.203\* | 0.076 | 0.067 | 0.116 | -0.057 | 0.082 |
|  | Sig. (2 Two tailed test) | 0.051 | 0.483 | 0.917 | 0.022 | 0.553 | 0.599 | 0.191 | 0.652 | 0.520 |
|  | N | 128 | 64 | 64 | 128 | 64 | 64 | 128 | 64 | 64 |
| **IT** | **1** | CC | 0.135 | 0.173 | -0.162 | 0.315\*\* | 0.265\* | 0.171 | 0.216\* | 0.122 | 0.064 |
|  | Sig. (2 Two tailed test) | 0.129 | 0.171 | 0.200 | <0.001 | 0.034 | 0.176 | 0.014 | 0.339 | 0.616 |
|  | N | 128 | 64 | 64 | 128 | 64 | 64 | 128 | 64 | 64 |
| **2** | CC | 0.170 | 0.145 | -0.203 | 0.260\*\* | 0.212 | -0.077 | 0.194\* | 0.099 | -0.120 |
|  | Sig. (2 Two tailed test) | 0.054 | 0.253 | 0.108 | 0.003 | 0.092 | 0.543 | 0.028 | 0.435 | 0.344 |
|  | N | 128 | 64 | 64 | 128 | 64 | 64 | 128 | 64 | 64 |
| **3** | CC | 0.199\* | 0.163 | -0.128 | 0.284\*\* | 0.205 | 0.008 | 0.113 | 0.058 | -0.279\* |
|  | Sig. (2 Two tailed test) | 0.024 | 0.199 | 0.314 | 0.001 | 0.104 | 0.948 | 0.204 | 0.651 | 0.026 |
|  | N | 128 | 64 | 64 | 128 | 64 | 64 | 128 | 64 | 64 |
| **4** | CC | 0.208\* | 0.125 | -0.092 | 0.278\*\* | 0.170 | 0.019 | 0.129 | 0.030 | -0.262\* |
|  | Sig. (2 Two tailed test) | 0.019 | 0.323 | 0.468 | 0.001 | 0.179 | 0.879 | 0.147 | 0.812 | 0.036 |
|  | N | 128 | 64 | 64 | 128 | 64 | 64 | 128 | 64 | 64 |
| **5** | CC | 0.230\*\* | 0.235 | -0.029 | 0.311\*\* | 0.256\* | 0.095 | 0.152 | 0.125 | -0.281\* |
|  | Sig. (2 Two tailed test) | 0.009 | 0.062 | 0.818 | <0.001 | 0.041 | 0.455 | 0.087 | 0.325 | 0.025 |
|  | N | 128 | 64 | 64 | 128 | 64 | 64 | 128 | 64 | 64 |
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| **Capnography** |  **M** | **Statistic data** | **All subjects** | **CFG** | **CG** | **All subjects** | **CFG** | **CG** | **All subjects** | **CFG** | **CG** |
| **ET** | **1** | CC | 0.182\* | 0.261\* | -0.008 | 0.306\*\* | 0.323\*\* | 0.254\* | 0.085 | 0.094 | -0.019 |
|  | Sig. (2 Two tailed test) | 0.040 | 0.037 | 0.952 | <0.001 | 0.009 | 0.043 | 0.338 | 0.462 | 0.879 |
|  | N | 128 | 64 | 64 | 128 | 64 | 64 | 128 | 64 | 64 |
| **2** | CC | 0.257\*\* | 0.248\* | 0.033 | 0.354\*\* | 0.312\* | 0.189 | 0.096 | 0.112 | -0.258\* |
|  | Sig. (2 Two tailed test) | 0.003 | 0.048 | 0.798 | <0.001 | 0.012 | 0.135 | 0.282 | 0.376 | 0.040 |
|  | N | 128 | 64 | 64 | 128 | 64 | 64 | 128 | 64 | 64 |
| **3** | CC | 0.267\*\* | 0.230 | 0.068 | 0.357\*\* | 0.275\* | 0.247\* | 0.096 | 0.060 | -0.234 |
|  | Sig. (2 Two tailed test) | 0.002 | 0.067 | 0.592 | <0.001 | 0.028 | 0.049 | 0.282 | 0.639 | 0.063 |
|  | N | 128 | 64 | 64 | 128 | 64 | 64 | 128 | 64 | 64 |
| **4** | CC | 0.295\*\* | 0.223 | 0.113 | 0.385\*\* | 0.268\* | 0.299\* | 0.153 | 0.077 | -0.179 |
|  | Sig. (2 Two tailed test) | 0.001 | 0.077 | 0.375 | <0.001 | 0.032 | 0.017 | 0.084 | 0.543 | 0.156 |
|  | N | 128 | 64 | 64 | 128 | 64 | 64 | 128 | 64 | 64 |
| **5** | CC | 0.162 | 0.207 | 0.035 | 0.272\*\* | 0.281\* | 0.205 | 0.025 | 0.141 | -0.227 |
|  | Sig. (2 Two tailed test) | 0.068 | 0.101 | 0.783 | 0.002 | 0.024 | 0.104 | 0.780 | 0.267 | 0.071 |
|  | N | 128 | 64 | 64 | 128 | 64 | 64 | 128 | 64 | 64 |
| **Slope 2** | **1** | CC | 0.036 | 0.092 | 0.092 | -0.065 | 0.030 | -0.108 | 0.006 | 0.059 | 0.081 |
|  | Sig. (2 Two tailed test) | 0.688 | 0.469 | 0.468 | 0.464 | 0.815 | 0.394 | 0.944 | 0.646 | 0.526 |
|  | N | 128 | 64 | 64 | 128 | 64 | 64 | 128 | 64 | 64 |
| **2** | CC | -0.025 | -0.012 | 0.150 | -0.106 | -0.012 | -0.152 | 0.051 | 0.047 | 0.147 |
|  | Sig. (2 Two tailed test) | 0.777 | 0.926 | 0.237 | 0.233 | 0.922 | 0.231 | 0.564 | 0.711 | 0.246 |
|  | N | 128 | 64 | 64 | 128 | 64 | 64 | 128 | 64 | 64 |
| **3** | CC | -0.014 | -0.014 | 0.221 | -0.067 | 0.009 | -0.047 | 0.031 | 0.079 | 0.099 |
|  | Sig. (2 Two tailed test) | 0.875 | 0.915 | 0.079 | 0.452 | 0.945 | 0.710 | 0.728 | 0.537 | 0.436 |
|  | N | 128 | 64 | 64 | 128 | 64 | 64 | 128 | 64 | 64 |
| **4** | CC | -0.023 | 0.005 | 0.082 | -0.106 | -0.002 | -0.195 | 0.037 | 0.007 | 0.157 |
|  | Sig. (2 Two tailed test) | 0.794 | 0.966 | 0.520 | 0.234 | 0.985 | 0.123 | 0.675 | 0.959 | 0.215 |
|  | N | 128 | 64 | 64 | 128 | 64 | 64 | 128 | 64 | 64 |
| **5** | CC | 0.038 | 0.208 | 0.074 | -0.086 | 0.156 | -0.199 | 0.031 | 0.153 | 0.192 |
|  | Sig. (2 Two tailed test) | 0.674 | 0.099 | 0.561 | 0.332 | 0.219 | 0.115 | 0.730 | 0.227 | 0.129 |
|  | N | 128 | 64 | 64 | 128 | 64 | 64 | 128 | 64 | 64 |
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| **Capnography** |  **M** | **Statistic data** | **All subjects** | **CFG** | **CG** | **All subjects** | **CFG** | **CG** | **All subjects** | **CFG** | **CG** |
| **Slope 2/VT** | **1** | CC | -0.072 | -0.031 | 0.081 | -0.192\* | -0.073 | -0.197 | -0.049 | 0.037 | 0.108 |
|  | Sig. (2 Two tailed test) | 0.422 | 0.805 | 0.525 | 0.030 | 0.567 | 0.119 | 0.579 | 0.772 | 0.397 |
|  | N | 128 | 64 | 64 | 128 | 64 | 64 | 128 | 64 | 64 |
| **2** | CC | -0.152 | -0.175 | 0.076 | -0.250\*\* | -0.192 | -0.206 | -0.016 | -0.028 | 0.181 |
|  | Sig. (2 Two tailed test) | 0.087 | 0.167 | 0.552 | 0.004 | 0.129 | 0.103 | 0.859 | 0.828 | 0.153 |
|  | N | 128 | 64 | 64 | 128 | 64 | 64 | 128 | 64 | 64 |
| **3** | CC | -0.147 | -0.151 | 0.126 | -0.229\*\* | -0.142 | -0.171 | -0.036 | -0.005 | 0.172 |
|  | Sig. (2 Two tailed test) | 0.097 | 0.234 | 0.321 | 0.009 | 0.261 | 0.176 | 0.685 | 0.967 | 0.174 |
|  | N | 128 | 64 | 64 | 128 | 64 | 64 | 128 | 64 | 64 |
| **4** | CC | -0.174\* | -0.140 | -0.003 | -0.268\*\* | -0.158 | -0.278\* | -0.030 | -0.034 | 0.191 |
|  | Sig. (2 Two tailed test) | 0.050 | 0.269 | 0.983 | 0.002 | 0.213 | 0.026 | 0.738 | 0.792 | 0.131 |
|  | N | 128 | 64 | 64 | 128 | 64 | 64 | 128 | 64 | 64 |
| **5** | CC | -0.102 | 0.055 | 0.009 | -0.234\*\* | 0.008 | -0.273\* | -0.045 | 0.064 | 0.245 |
|  | Sig. (2 Two tailed test) | 0.251 | 0.667 | 0.944 | 0.008 | 0.953 | 0.029 | 0.616 | 0.617 | 0.051 |
|  | N | 128 | 64 | 64 | 128 | 64 | 64 | 128 | 64 | 64 |
| **VT** | **1** | CC | 0.180\* | 0.170 | -0.051 | 0.298\*\* | 0.187 | 0.258\* | 0.107 | 0.017 | -0.067 |
|  | Sig. (2 Two tailed test) | 0.042 | 0.179 | 0.687 | 0.001 | 0.138 | 0.039 | 0.229 | 0.897 | 0.601 |
|  | N | 128 | 64 | 64 | 128 | 64 | 64 | 128 | 64 | 64 |
| **2** | CC | 0.211\* | 0.236 | -0.039 | 0.302\*\* | 0.247\* | 0.186 | 0.060 | 0.062 | -0.183 |
|  | Sig. (2 Two tailed test) | 0.017 | 0.061 | 0.758 | 0.001 | 0.049 | 0.140 | 0.501 | 0.628 | 0.147 |
|  | N | 128 | 64 | 64 | 128 | 64 | 64 | 128 | 64 | 64 |
| **3** | CC | 0.202\* | 0.194 | -0.071 | 0.290\*\* | 0.196 | 0.199 | 0.076 | 0.036 | -0.186 |
|  | Sig. (2 Two tailed test) | 0.022 | 0.125 | 0.578 | 0.001 | 0.121 | 0.115 | 0.392 | 0.780 | 0.141 |
|  | N | 128 | 64 | 64 | 128 | 64 | 64 | 128 | 64 | 64 |
| **4** | CC | 0.250\*\* | 0.203 | 0.030 | 0.341\*\* | 0.205 | 0.286\* | 0.080 | 0.027 | -0.184 |
|  | Sig. (2 Two tailed test) | 0.004 | 0.108 | 0.814 | <0.001 | 0.104 | 0.022 | 0.371 | 0.830 | 0.145 |
|  | N | 128 | 64 | 64 | 128 | 64 | 64 | 128 | 64 | 64 |
| **5** | CC | 0.212\* | 0.058 | 0.041 | 0.323\*\* | 0.106 | 0.272\* | 0.115 | 0.011 | -0.254\* |
|  | Sig. (2 Two tailed test) | 0.016 | 0.647 | 0.749 | <0.001 | 0.405 | 0.030 | 0.196 | 0.931 | 0.042 |
|  | N | 128 | 64 | 64 | 128 | 64 | 64 | 128 | 64 | 64 |
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| **Capnography** |  **M** | **Statistic data** | **All subjects** | **CFG** | **CG** | **All subjects** | **CFG** | **CG** | **All subjects** | **CFG** | **CG** |
| **VTalv** | **1** | CC | 0.164 | 0.123 | -0.054 | 0.282\*\* | 0.138 | 0.224 | 0.141 | -0.003 | -0.003 |
|  | Sig. (2 Two tailed test) | 0.064 | 0.332 | 0.674 | 0.001 | 0.276 | 0.075 | 0.112 | 0.983 | 0.983 |
|  | N | 128 | 64 | 64 | 128 | 64 | 64 | 128 | 64 | 64 |
| **2** | CC | 0.233\*\* | 0.260\* | -0.019 | 0.323\*\* | 0.275\* | 0.199 | 0.089 | 0.091 | -0.177 |
|  | Sig. (2 Two tailed test) | 0.008 | 0.038 | 0.880 | <0.001 | 0.028 | 0.114 | 0.318 | 0.475 | 0.162 |
|  | N | 128 | 64 | 64 | 128 | 64 | 64 | 128 | 64 | 64 |
| **3** | CC | 0.231\*\* | 0.228 | -0.021 | 0.309\*\* | 0.220 | 0.198 | 0.082 | 0.041 | -0.202 |
|  | Sig. (2 Two tailed test) | 0.009 | 0.070 | 0.872 | <0.001 | 0.081 | 0.117 | 0.360 | 0.745 | 0.109 |
|  | N | 128 | 64 | 64 | 128 | 64 | 64 | 128 | 64 | 64 |
| **4** | CC | 0.238\*\* | 0.175 | 0.053 | 0.336\*\* | 0.180 | 0.301\* | 0.078 | 0.004 | -0.187 |
|  | Sig. (2 Two tailed test) | 0.007 | 0.166 | 0.677 | <0.001 | 0.154 | 0.016 | 0.379 | 0.974 | 0.138 |
|  | N | 128 | 64 | 64 | 128 | 64 | 64 | 128 | 64 | 64 |
| **5** | CC | 0.214\* | 0.137 | 0.004 | 0.328\*\* | 0.171 | 0.259\* | 0.087 | 0.040 | -0.289\* |
|  | Sig. (2 Two tailed test) | 0.015 | 0.279 | 0.978 | <0.001 | 0.176 | 0.039 | 0.328 | 0.752 | 0.021 |
|  | N | 128 | 64 | 64 | 128 | 64 | 64 | 128 | 64 | 64 |
| **VD** | **1** | CC | 0.144 | 0.043 | -0.073 | 0.277\*\* | 0.119 | 0.236 | 0.125 | 0.047 | -0.148 |
|  | Sig. (2 Two tailed test) | 0.105 | 0.739 | 0.568 | 0.002 | 0.349 | 0.060 | 0.161 | 0.714 | 0.242 |
|  | N | 128 | 64 | 64 | 128 | 64 | 64 | 128 | 64 | 64 |
| **2** | CC | 0.176\* | 0.158 | -0.089 | 0.263\*\* | 0.194 | 0.136 | 0.086 | 0.095 | -0.260\* |
|  | Sig. (2 Two tailed test) | 0.047 | 0.213 | 0.487 | 0.003 | 0.124 | 0.284 | 0.333 | 0.455 | 0.038 |
|  | N | 128 | 64 | 64 | 128 | 64 | 64 | 128 | 64 | 64 |
| **3** | CC | 0.197\* | 0.126 | -0.087 | 0.289\*\* | 0.135 | 0.190 | 0.109 | 0.013 | -0.187 |
|  | Sig. (2 Two tailed test) | 0.025 | 0.321 | 0.495 | 0.001 | 0.286 | 0.133 | 0.220 | 0.920 | 0.139 |
|  | N | 128 | 64 | 64 | 128 | 64 | 64 | 128 | 64 | 64 |
| **4** | CC | 0.207\* | 0.114 | 0.017 | 0.305\*\* | 0.152 | 0.267\* | 0.136 | 0.067 | -0.210 |
|  | Sig. (2 Two tailed test) | 0.019 | 0.368 | 0.896 | <0.001 | 0.229 | 0.033 | 0.127 | 0.601 | 0.096 |
|  | N | 128 | 64 | 64 | 128 | 64 | 64 | 128 | 64 | 64 |
| **5** | CC | 0.192\* | 0.059 | -0.004 | 0.294\*\* | 0.133 | 0.210 | 0.102 | 0.021 | -0.253\* |
|  | Sig. (2 Two tailed test) | 0.030 | 0.641 | 0.977 | 0.001 | 0.296 | 0.096 | 0.250 | 0.870 | 0.044 |
|  | N | 128 | 64 | 64 | 128 | 64 | 64 | 128 | 64 | 64 |
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| **Capnography** |  **M** | **Statistic data** | **All subjects** | **CFG** | **CG** | **All subjects** | **CFG** | **CG** | **All subjects** | **CFG** | **CG** |
| **VD/VT** | **1** | CC | -0.165 | -0.228 | -0.046 | -0.195\* | -0.178 | -0.133 | -0.072 | 0.002 | -0.162 |
|  | Sig. (2 Two tailed test) | 0.062 | 0.070 | 0.718 | 0.027 | 0.159 | 0.295 | 0.420 | 0.986 | 0.201 |
|  | N | 128 | 64 | 64 | 128 | 64 | 64 | 128 | 64 | 64 |
| **2** | CC | -0.196\* | -0.262\* | -0.015 | -0.270\*\* | -0.235 | -0.188 | -0.045 | -0.025 | 0.046 |
|  | Sig. (2 Two tailed test) | 0.027 | 0.036 | 0.905 | 0.002 | 0.062 | 0.136 | 0.611 | 0.845 | 0.718 |
|  | N | 128 | 64 | 64 | 128 | 64 | 64 | 128 | 64 | 64 |
| **3** | CC | -0.228\*\* | -0.258\* | -0.020 | -0.292\*\* | -0.253\* | -0.183 | -0.059 | -0.105 | 0.160 |
|  | Sig. (2 Two tailed test) | 0.010 | 0.040 | 0.873 | 0.001 | 0.044 | 0.148 | 0.509 | 0.409 | 0.208 |
|  | N | 128 | 64 | 64 | 128 | 64 | 64 | 128 | 64 | 64 |
| **4** | CC | -0.230\*\* | -0.241 | -0.073 | -0.298\*\* | -0.212 | -0.252\* | -0.028 | -0.020 | 0.109 |
|  | Sig. (2 Two tailed test) | 0.009 | 0.055 | 0.567 | 0.001 | 0.093 | 0.045 | 0.753 | 0.878 | 0.393 |
|  | N | 128 | 64 | 64 | 128 | 64 | 64 | 128 | 64 | 64 |
| **5** | CC | -0.187\* | -0.111 | -0.079 | -0.257\*\* | -0.071 | -0.219 | -0.046 | 0.052 | 0.163 |
|  | Sig. (2 Two tailed test) | 0.034 | 0.384 | 0.535 | 0.003 | 0.580 | 0.082 | 0.605 | 0.681 | 0.197 |
|  | N | 128 | 64 | 64 | 128 | 64 | 64 | 128 | 64 | 64 |

FVC, forced vital capacity; FEV1, forced expiratory volume in one second; slope 3, slope of phase 3 of capnography; slope3/VT, slope of phase 3 normalized by expired tidal volume; PetCO2, end-tidal carbon dioxide tension; slope 3/PetCO2, slope of phase 3/end-tidal carbon dioxide tension ratio; VCO2, fraction of expired CO2; VCO2/BMI, fraction of expired CO2 by body mass index;BMI, body mass index; EV, expired volume; IT, inspiratory time; ET, expiratory time; slope 2, slope of phase 2; Slope 2/VT, phase 2 slope normalized by expired tidal volume; VT, expired tidal volume; VTalv, alveolar tidal volume; VD, anatomic dead space volume; M, moments; moment 1, basal; 2, one and two minutes of the test; 3, three and four minutes of the test; 4, five and six minutes of the test; 5, immediately post exercise; CFG, cystic fibrosis group; CG, control group; N, number of subjects; CC, correlation coefficient; \*\* The correlation is significant at the 0.01 level (2 ends); \* The correlation is significant at the 0.05 level (2 ends). Alpha=0.05. Statistical analysis was performed using Spearman correlation (Rho). In the table is presented the correlation coefficient of Spearman's rank. Data marked with \* and \*\* showed statistically significant p value.