A. A. Cherevko, T. S. Gologush, I. A. Petrenko, V. V. Ostapenko, V. A. Panarin, Modeling of the arteriovenous malformation embolization optimal scenario, Royal Society Open Science

### Dependency table of the blood velocity $v_b$ and blood pressure $p$ in the artery on the volume average embolic agent concentration 1-S

| Patient | Measurement number | 1-S | 2 | 3 | 4 | 5 | 6 |
|---------|--------------------|-----|---|---|---|---|---|
| K       | 1                  | 0.0000 | 0.2080 | 0.6053 | 0.7620 | 0.8700 | 1.0000 |
|         | 2                  | 0.2076 | 0.1625 | 0.0424 | 0.0562 | 0.0238 | 0.0000 |
|         | 3                  | 0.6254 | 0.4325 | 0.4304 | 0.4381 | 0.3869 | 0.0000 |
|         | 4                  | 0.0424 | 0.0125 | 0.0107 | 0.0000 |        |        |
|         | 5                  | 0.0000 | 0.2500 | 0.5000 | 0.6250 | 1.0000 |        |
|         | 6                  | 0.0000 | 0.0481 | 0.0125 | 0.0107 | 0.0000 |        |
| T       | 1                  | 0.0000 | 0.3240 | 0.5610 | 0.6120 | 0.8074 | 1.0000 |
|         | 2                  | 0.6254 | 0.4325 | 0.4304 | 0.4381 | 0.3869 | 0.0000 |
|         | 3                  | 0.4325 | 0.4304 | 0.4381 | 0.3869 | 0.0000 |        |
|         | 4                  |        |        |        |        |        |        |
|         | 5                  | 0.3875 | 0.0481 | 0.0125 | 0.0107 | 0.0000 |        |
| P       | 1                  | 0.0000 | 0.2500 | 0.5000 | 0.6250 | 1.0000 |        |
|         | 2                  | 0.3875 | 0.0481 | 0.0125 | 0.0107 | 0.0000 |        |
|         | 3                  | 0.0000 | 0.2500 | 0.5000 | 0.6250 | 1.0000 |        |
|         | 4                  | 0.5011 | 0.5260 | 0.5212 | 0.5316 |        |        |
| S       | 1                  | 0.0000 | 0.2500 | 0.5000 | 0.6250 | 1.0000 |        |
|         | 2                  | 0.3875 | 0.0481 | 0.0125 | 0.0107 | 0.0000 |        |
|         | 3                  | 0.0000 | 0.2500 | 0.5000 | 0.6250 | 1.0000 |        |
|         | 4                  | 0.5011 | 0.5260 | 0.5212 | 0.5316 |        |        |

### Hemodynamic and geometric parameters of patients needed to calculate absolute permeability $K$

| Patient | $L$ [$10^{-2}$ m] | $A$ [$10^{-4}$ m$^2$] | $\omega$ [$10^{-6}$ m$^2$] | $v_b$ [m/s] | $p_0$ [mmHg] | $K$ [m$^2$] |
|---------|-------------------|------------------------|-----------------------------|-------------|--------------|-------------|
| K       | 2.40              | 4.52160                | 4.52376                     | 0.2076      | 58.26        | 40.00       | 8.19E-11   |
| T       | 2.20              | 2.00000                | 4.52376                     | 0.6254      | 40.14        | 40.00       | 6.67E-08   |
| P       | 3.00              | 3.14150                | 3.14150                     | 0.3875      | 49.47        | 40.00       | 3.68E-10   |
| S       | 3.00              | 2.83520                | 2.54462                     | 0.64490     | 65.70        | 40.00       | 2.03E-10   |
| I       | 1.86              | 0.95030                | 4.90859                     | 0.57240     | 46.48        | 12.32       | 4.83E-10   |
| B       | 3.00              | 6.15734                | 5.30914                     | 0.03282     | 61.20        | 21.01       | 6.34E-12   |
| A       | 1.70              | 5.72538                | 4.90859                     | 0.40779     | 32.60        | 25.00       | 2.35E-10   |
| C       | 3.00              | 2.01056                | 1.32728                     | 0.66527     | 33.44        | 27.08       | 6.21E-10   |
| Sh      | 4.40              | 5.30914                | 1.53934                     | 0.52415     | 24.83        | 6.27        | 1.08E-10   |
| M       | 2.83              | 3.94070                | 1.32728                     | 0.39375     | 69.16        | 60.56       | 1.31E-10   |