**Table 1. Clinical and anamnestic characteristics of the patients with lower extremity deep vein thrombosis, N (%)**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Parameter** | **Acute phase (n = 64)** | | |  | **Subacute phase (n = 37)** | | |
| **PE+** | | **PE-**  **(n = 38)** | | **PE+** | | **PE-**  **(n = 17)** |
| **ACP+**  **(n = 15)** | **ACP-**  **(n = 11)** | **ACP+**  **(n = 9)** | **ACP-**  **(n = 11)** |
| Men  Women | 12 (80)  3 (20) | 8 (72.7)  3 (27.3) | 18 (47.4)  20 (52.6) | | 5 (55.6)  4 (44.4) | 5 (45.5)  6 (54.5) | 9 (52.9)  8 (47.1) |
| Age, years:  < 40  40–60  > 60 | 4 (26.7)  3 (20)  8 (53.3) | 1 (9.1)  4 (36.4)  6 (54.5) | 7 (18.4)  9 (23.7)  22 (57.9) | | 2 (22.2)  2 (22.2)  5 (55.6) | 2 (18.2)  3 (27.3)  6 (54.5) | 1 (5.9)  6 (35.3)  10 (58.8) |
| IV  FV | 7 (46.7)  8 (53.3) | 1 (9.1)  10 (90.9) | 18 (47.4)  20 (52.6) | | 3 (33.3)  6 (66.7) | 4 (36.4)  7 (63.6) | 7 (41.2)  10 (58.8) |
| Floating thrombus | 6 (40) | 7 (63.6) | 20 (52.6) | | 3 (33.3) | 1 (9,1) | 8 (47.1) |
| PE:  massive  submassive  minor | 6 (40)  9 (60)  – | 4 (36.4)  6 (54.5)  1 (9.1) | –  –  – | | 3 (33.4)  3 (33.3)  3 (33.3) | 6 (54.5)  4 (36.4)  1 (9.1) | –  –  – |

«+», Yes; «-», No; ACP, acute cor pulmonale; FV, femoral vein; IV, iliac vein; PE, pulmonary embolism

**Table 2. Mean values of the Young's modulus for the thrombi at various levels of lower extremity veins depending on the phase of deep vein thrombosis, kPa**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Level** | **Acute phase (n = 64)** | | | **p1** | **p2** | **Subacute phase (n = 37)** | | | **p3** | **p4** |
| **PE+** | | **PE-**  **(n = 38)** | **PE+** | | **PE-**  **(n = 17)** |
| **ACP+**  **(n = 15)** | **ACP-**  **(n = 11)** | **ACP+**  **(n = 9)** | **ACP-**  **(n = 11)** |
| IV | 12.3 ± 3.1  12.2; 6.8–16.7 | 14.3\*  – | 15.4 ± 4.5  15.2; 10.0–28,7 | 0.049 | – | 18.5 ± 8.2  22.8; 9.0–23.7 | 31.9 ± 2.7  32.2; 29.0–34.3 | 30.8 ± 7.5  32.7; 14.5–36.7 | 0.038 | 0.388 |
| FV | 13.8 ± 4.6  13.8; 6.1–20.0 | 12.9 ± 5.4  11.6; 7.1–22.7 | 10.4 ± 5.4  8.1; 6.2–27,9 | 0.048 | 0.070 | 31.1 ± 11.1  32.3; 13.6–45.1 | 26.0 ± 16.0  17.1; 3.5–55.5 | 22.0 ± 10.0  20.0; 8.2–43.7 | 0.041 | 0.461 |
| PV | 13.6 ± 2.8  13.7; 9,0–18.7 | 13.9 ± 4.3  12.4; 6.0–21.0 | 13.4 ± 4,3  12.7; 5.9–25.7 | 0.354 | 0.433 | 24.8 ± 9.0  24.0; 8.8–38.3 | 22.2 ± 13.8  21.5; 6.3–56.0 | 23.1 ± 6.5  24.7; 10.5–31.0 | 0.191 | 0.270 |
| PTV | 14.3 ± 2.5  15.0; 10.3–18.0 | 14.4 ± 3.2  13.7; 9.4–19.0 | 15.3 ± 4,9  14.7; 4.2–28.3 | 0.357 | 0.303 | 22.7 ± 4.7  22.9; 13.3–30.7 | 21.4 ± 5.0  21.3; 15.0–30.0 | 26.9 ± 9.2  24.0; 13.0–44.0 | 0.135 | 0.327 |

«+», Yes; «-», No; ACP, acute cor pulmonale; DVT, deep vein thrombosis; FV, femoral vein; IV, iliac vein; PE, pulmonary embolism; PTV, posterior vein tibialis; PV, popliteal vein

The values are given as means and standard deviations (Mean ± SD), medians (Me), minimum and maximum (min–max). In bold, significant differences between the groups

\* There was only one patient with acute IV thrombosis and PE without ACP, which did not allow for a comprehensive analysis

**Table 3. The results of ROC analysis for the mean values of the Young's modulus of the proximal venous thrombus segment in acute and subacute thrombosis of iliac and femoral veins depending on their complications, such as massive pulmonary embolism (by computed tomography) and acute cor pulmonale (by echocardiography)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Thrombosis phase** | **PE** | **Optimal threshold, kPa** | **AUC** | **Sensitivity/specificity, %** |
| Femoral vein | | | | |
| Acute | With AСP  Massive | ≥ 11  ≥ 9.5 | 0.675  0.706 | 87.5/63.3  100/50.0 |
| Subacute | With AСP  Massive | ≥ 24.4  ≥ 24.4 | 0.655  0.550 | 83.3/57.1  60.0/68.8 |
| Iliac vein | | | | |
| Acute | With AСP  Massive | ≤ 16.7  ≤ 16.7 | 0.714  0.683 | 100/42.1  100/40.0 |
| Subacute | With AСP  Massive | ≤ 23.7  ≥ 29.0 | 0.939  0.500 | 100/90.9  100/31.4 |

ACP, acute cor pulmonale; AUC, area under the curve; PE, pulmonary embolism