Introduction. Acute varicothrombophlebitis is one of the most common and dangerous complications of varicose veins of the lower extremities, as it is a common cause of deep vein thrombosis and pulmonary embolism. It develops in 30-60% of patients with varicose veins.

Methods. The evaluation of early and long-term results of surgical treatment of acute varicothrombophlebitis in 234 patients with acute varicothrombophlebitis in the basin of the great saphenous vein was performed.

Results. Depending on the prevalence of thrombotic process in the basin of the great saphenous vein, patients were divided into the following groups: Group I – inflow varicothrombophlebitis (n = 23 (9.8%); Group II – varicothrombophlebitis of the shin (n = 51 (21.8%); Group III – varicothrombophlebitis of the thigh (n = 21 (9.0%); Group IV – total varicothrombophlebitis (n = 27 (11.6%); Group V – ascending varicothrombophlebitis (n = 67 (28.6%); VI group – transfascial thrombosis (n = 45 (19.2%).

Conclusions. Surgical treatment of acute varicothrombophlebitis of the lower extremities according to the cumulative analysis allowed to achieve a positive treatment result in 94.5% of patients. Recurrence of thrombosis in the early and distant postoperative period was observed in 0.5% and 2.2%, respectively.

Key words: acute varicothrombophlebitis, surgical treatment, great saphenous vein, long-term results.
cal treatment of transfascial thrombosis were assessed as good; in 12 (5.2%) patients after evaluation of clinical signs and instrumental methods of research the results of surgical treatment were considered satisfactory (Figure 1);
- in 1 (0.4%) patient the results of surgical treatment were considered unsatisfactory (Figure 1).

In the immediate postoperative period, complications were observed in 11 (4.7%) of 234 patients operated on for acute varicothrombophlebitis (Table 2).

Table 2. Complications in the immediate postoperative period after surgical treatment of acute varicothrombophlebitis (n = 234)

<table>
<thead>
<tr>
<th>Complication</th>
<th>Number of patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lymphorrhea</td>
<td>7 (63.6%)</td>
</tr>
<tr>
<td>Marginal necrosis of the postoperative wound</td>
<td>2 (18.2%)</td>
</tr>
<tr>
<td>Postoperative wound suppuration</td>
<td>1 (9.1%)</td>
</tr>
<tr>
<td>Recurrence of thrombosis</td>
<td>1 (9.1%)</td>
</tr>
<tr>
<td>Total</td>
<td>11 (100%)</td>
</tr>
</tbody>
</table>

The most common complication of the surgical wound was lymphorrhea, which was observed in 7 (3.0%) of 234 patients. In all patients, prolonged serous discharge was observed from the surgical wound in the groin area with access to the femoral veins. Sero ma formation of the postoperative wound was observed in 1 (14.3%) of 7 patients. At the same time performed drainage of the seroma cavity under ultrasonic control. All patients were able to eliminate lymphorrhea within 3 weeks of surgery. The duration of lymphorrhea ranged from 10 to 21 days, with an average of 11 ± 1.3 days. In order to eliminate lymphorrhea used tight bandaging of the postoperative wound, and if necessary, drainage of the serum cavity. Contributed to the elimination of lymphorrhea and phlebotropic drugs, which were prescribed to all operated patients.

Marginal necrosis of the postoperative wound was observed in 2 (0.8%) of 234 patients: one patient in the inguinal and popliteal accesses. The consequences of necrotic changes in all patients were eliminated by local therapy, postoperative wounds in the area of marginal necrosis healed with secondary tension.

Postoperative wound suppuration was observed in 1 (0.4%) of 234 patients. In all patients, inflammatory complications were superficial and did not extend below the superficial fascia. Postoperative wound suppuration was observed in the groin area. Manifestations of purulent inflammation were successfully eliminated within 2 weeks after additional appointment, along with systemic, local antibacterial therapy and drainage. The spread of infection to deeper tissues was not observed. The postoperative wound healed with secondary tension.

Recurrence of the thrombotic process in the immediate postoperative period was observed in 1 (0.4%) of 234 patients with acute varicothrombophlebitis. The patient on the 7th day of the postoperative period after open thrombectomy from the mouth of the ERW and radical phlebectomy during ultrasound revealed local thrombotic occlusion of the sural venous sinuses, with the apex of thrombotic masses without signs of flotation. Due to the fixed nature of the proximal part of the thrombotic masses, it was decided to continue conservative anticoagulant therapy. The occurrence of thrombotic lesions of the deep veins in the postoperative period was observed against the background of adequate anticoagulant therapy started from the moment of preoperative preparation. We managed to identify the cause of the progression of the thrombotic process - the patient was diagnosed with cervical cancer. At the same time, no signs of thromboembolism in the operated patients were observed.

When evaluating the results in the control group in the period up to 1 month from the date of prescribed conservative treatment, good results were observed in 28 (23.1%) of 121 patients, satisfactory - in 89 (73.6%) and unsatisfactory - in 4 (3.3) %) patients (Figure 2).

Progression of the thrombotic process with the transition to the deep venous system was found in 4 patients in the control group. No episodes of pulmonary embolism were observed in patients in the control group on anticoagulant use.

No general complications were observed in the immediate postoperative period.

The length of stay of patients in the hospital after surgical treatment of acute varicothrombophlebitis ranged from 3 to 12 days, with an average of 8.4 ± 1.2 days. The vast majority of patients in the control group - 98 (81.0%) 81.0% of 121 patients - took new oral anticoagulants and were treated on an outpatient basis.

Early results of surgical treatment of acute varicothrombophlebitis were evaluated in 198 patients, including:

- in 183 (92.4%) of 198 patients the results of surgical treatment of acute varicothrombophlebitis were assessed as good;
- in 14 (7.1%) patients after evaluation of clinical signs and instrumental methods
of research considered the results of surgical treatment satisfactory;
- in 1 (0.5%) patients the results of surgical treatment in the early postoperative period were unsatisfactory (Figure 3).

Recurrence of the thrombotic process in the early postoperative period was observed in 1 (0.5%) of 198 patients with acute varicothrombophlebitis. In this patient, 2 months after crossectomy and long-term stripping, a recurrence of the thrombotic process was observed in the Leonardo vein, spreading through the perforators to the deep venous system. The apex of thrombotic masses was fixed in the popliteal vein. Due to the fixed nature of the proximal part of the thrombotic masses, it was decided to prescribe conservative anticoagulant therapy.

In 3 patients, after 3, 5 and 10 months, respectively, erysipelas of the shin skin was observed against the background of trophic changes due to long-term untreated varicose veins. After the prescribed conservative treatment for 10 days was able to successfully eliminate the manifestations of erysipelas.

Acute myocardial infarction occurred in 1 patient 8 months after crossectomy, phlebotherapy and stem sclerotherapy. The patient underwent X-ray coronary ventriculography and coronary artery stenting on the basis of the Transcarpathian Regional Clinical Cardiology Dispensary. After 3 days, the patient was discharged in satisfactory condition for outpatient treatment. No other general complications were observed in the early postoperative period. PE in any patient who was observed in the early postoperative period was not detected. No fatalities were observed in the early postoperative period.

Thus, complications in the early postoperative period were observed in 5 (2.5%) of 198 patients operated on for acute varicothrombophlebitis (Table 3).

Table 3. Complications in the early postoperative period after surgical treatment of acute varicothrombophlebitis (n=198)

<table>
<thead>
<tr>
<th>Complication</th>
<th>Number of patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recurrence of thrombosis</td>
<td>1 (20.0%)</td>
</tr>
<tr>
<td>Erysipelas of shin</td>
<td>3 (60.0%)</td>
</tr>
<tr>
<td>Acute myocardial infarction</td>
<td>1 (20.0%)</td>
</tr>
<tr>
<td>Total</td>
<td>5 (100%)</td>
</tr>
</tbody>
</table>

The results of conservative treatment of acute varicothrombophlebitis within 1 year were evaluated in 55 patients, in particular: in 12 (21.8%) patients the results were evaluated as good, in 36 (65.5%) - considered satisfactory and in 7 (12.7%) - the results were unsatisfactory (Figure 4).

Recurrence of thrombotic process within 1 year after
conservative treatment of acute varicothrombophlebitis occurred in 7 (12.7%) patients, including 7 patients with superficial veins of the lower extremity, of which in 2 cases the process spread to the deep venous system. Phlebectomy was performed in 3 of 5 patients with recurrence of acute varicothrombophlebitis. Other patients with varicothrombophlebitis refused surgery, and they and patients with deep vein thrombosis were prescribed conservative anticoagulant therapy. Despite the prescribed anticoagulant therapy, one episode of non-lethal pulmonary embolism was observed.

Progression of trophic changes in the skin of the affected lower extremity was observed in 13 patients of the control group during the year. In 5 patients with long-term untreated varicose veins and trophic skin changes developed erysipelas of the shin skin, which was eliminated after conservative treatment.

No general complications were observed in patients after conservative treatment of acute varicothrombophlebitis for one year.

Long-term results of surgical treatment of acute varicothrombophlebitis were evaluated in 45 patients of the main group, in particular:

- in 40 (88.9%) of 45 patients the results of surgical treatment of acute varicothrombophlebitis were assessed as good;
- in 4 (8.9%) patients after evaluation of clinical signs and instrumental methods of research the results of surgical treatment were considered satisfactory;
- in 1 (2.2%) patient the results of surgical treatment in the remote postoperative period were unsatisfactory (Figure 5).

Recurrence of the thrombotic process in the remote postoperative period was observed in 1 (2.2%) of 45 patients with acute varicothrombophlebitis. In this patient at 3 years of follow-up after open thrombectomy of the common femoral vein with venotomy of the latter, crossectomy, radical phlebectomy revealed recurrence of the thrombotic process in the popliteal-femoral segment. The apex of thrombotic masses was fixed in the superficial femoral vein. The cause of the recurrence of the thrombotic lesion could not be determined. Due to the fixed nature of the proximal part of the thrombotic masses, it was decided to prescribe conservative anticoagulant therapy. No cases of pulmonary embolism were detected.

No fatalities were observed in the remote postoperative period.

The results of conservative treatment of acute varicothrombophlebitis for 3 years were evaluated in 29 patients, in particular: in 5 (17.2%) patients the results were evaluated as good, in 15 (51.7%) - considered satisfactory and in 9 (31.1%) - the results were unsatisfactory (Figure 6).

Recurrence of thrombotic process in varicose veins within 3 years after conservative treatment of acute varicothrombophlebitis was observed in 9 (31.1%) patients. Of these, 4 patients showed the transition of the thrombotic process to the deep venous system.

At the same time, there were two cases of pulmonary embolism - one of which was fatal. Progression of signs of decompensated chronic venous insufficiency, in particular trophic changes of the skin, was found in 13 (44.8%) patients of the control group against 4 (8.9%) patients of the main group.

Thus, complications in the remote postoperative period were observed in 1 (2.2%) of 45 patients operated on for acute varicothrombophlebitis.

No general complications were observed within 3 years of follow-up in both groups of patients.

At the same time, the cumulative analysis of the results of the postoperative period showed that good and satisfactory results of surgical treatment of acute varicothrombo-
phlebitis were observed in 94.5% of patients at the end of 3 years of observation (Table 4).

At the same time, the cumulative analysis of the postoperative period showed that good and satisfactory results of surgical treatment of acute varicothrombophlebitis at the end of the 3rd year of follow-up, found in 94.5% of patients in the main (Table 4) and 33.9% of patients in the control group at the end of 3 year of observation (Table 5).

Thus, surgical treatment of acute varicothrombophlebitis can achieve a positive result in 94.5% of patients and effectively prevent thromboembolic complications.

Conclusions:
1. Recurrence of thrombosis in the early and distant postoperative period was observed in 0.5% and 2.2%, respectively, and in patients of the control group – in 12.7% and 31.1%, respectively.

2. Surgical treatment of acute varicothrombophlebitis of the lower extremities according to the cumulative analysis allowed to achieve a positive result in 94.5% of patients, and conservative - only in 33.9% of patients.

Ethical standards: The research was conducted according to the Declaration of Helsinki.

Informed Consent: Written informed consent was obtained from the patient.

Conflict of interest: The authors declare no conflict of interest.

Financial Disclosure: The authors declare no financial support.

References
2. Gloviczki P. Development and anatomy of the ve-

Table 4. Cumulative analysis of thrombosis recurrence after surgical treatment of acute varicothrombophlebitis

<table>
<thead>
<tr>
<th>Observation period from x to x + 1 (months)</th>
<th>Lx</th>
<th>Dx</th>
<th>Ux</th>
<th>Wx</th>
<th>L’x</th>
<th>Qx</th>
<th>Px</th>
<th>P’x=P1xP2xP3.x100</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-1</td>
<td>234</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>234</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>1-12</td>
<td>197</td>
<td>1</td>
<td>36</td>
<td>0</td>
<td>0</td>
<td>179</td>
<td>0.005</td>
<td>0.995</td>
</tr>
<tr>
<td>12-36</td>
<td>44</td>
<td>1</td>
<td>189</td>
<td>0</td>
<td>0</td>
<td>20.5</td>
<td>0.05</td>
<td>0.95</td>
</tr>
</tbody>
</table>

Table 5. Cumulative analysis recurrence of thrombosis recurrence after conservative treatment of acute varicothrombophlebitis

<table>
<thead>
<tr>
<th>Observation period from x to x + 1 (months)</th>
<th>Lx</th>
<th>Dx</th>
<th>Ux</th>
<th>Wx</th>
<th>L’x</th>
<th>Qx</th>
<th>Px</th>
<th>P’x=P1xP2xP3.x100</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-1</td>
<td>117</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>117</td>
<td>0.03</td>
<td>0.97</td>
</tr>
<tr>
<td>1-12</td>
<td>48</td>
<td>7</td>
<td>66</td>
<td>0</td>
<td>0</td>
<td>15</td>
<td>0.47</td>
<td>0.53</td>
</tr>
<tr>
<td>12-36</td>
<td>20</td>
<td>9</td>
<td>92</td>
<td>0</td>
<td>1</td>
<td>26.5</td>
<td>0.34</td>
<td>0.66</td>
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