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**CLINICAL AND ULTRASOUND CHARACTERISTICS IN TREATMENT GROUPS OF PATIENTS WITH ACUTE THROMBOSIS OF DEEP LOWER EXTREMITY**

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Tashkent State Medical Academy***КЛИНИКО-УЛЬТРАЗВУКОВЫЕ ХАРАКТЕРИСТИКИ У ГРУПП ЛЕЧЕНИЯ БОЛЬНЫХ ОСТРЫМ ТРОМБОЗОМ ГЛУБОКИХ ВЕН НИЖНЕЙ КОНЕЧНОСТИ***Хасанов Вали Рахматуллаевич  
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The article is dedicated to the study of the effectiveness, immediate and long-term results, according to ultrasound examination, catheter-aspiration thrombectomy, thrombolysis and antiplatelet therapy in patients with acute vein thrombosis of the lower extremities, since there is no consensus in the available literature on the feasibility and results of endovascular catheter-aspiration thrombectomy and thrombolysis with thrombosis of the veins of the lower extremities.

**АННОТАЦИЯ**

Статья посвящена изучению эффективности, непосредственных и отдаленных результатов, по данным УЗДСК, катетерно-аспирационной тромбэктомии, тромболитика и антиагрегантной терапии у больных с острым тромбозом вен нижних конечностей, поскольку в доступной литературе нет единого мнения о целесообразности проведения и результатах эндоваскулярных катетерно-аспирационной тромбэктомии и тромболитика при тромбозе вен нижних конечностей.

**Ключевые слова:** клинико-ультразвуковые, острый тромбоз, нижние конечности, экстренная хирургия, риск. фактор.

**Key words:** clinical ultrasound, acute thrombosis, lower limbs, emergency surgery, risk. factor.

Deep vein thrombosis of the lower extremities is one of the most urgent problems in medicine today, since untimely treatment leads to high mortality from pulmonary embolism (pulmonary embolism), early patient disability [1; 4; 8]. Given the high prevalence, tendency to relapse, the development of complications, the cost of treatment with THVNA and, especially, pulmonary embolism is high [4]. Leading experts from different countries develop and update recommendations that analyze and summarize evidence-based medicine data relevant at the time of their creation [2; 9]. However, the literature data indicate the absence in real clinical practice of unconditional implementation of the new diagnostic algorithms recommended by experts, drug and surgical approaches for effective treatment and prevention of THVLE [3, 10; 13].

The most obvious reason for the positive dynamics of outcomes in patients with pulmonary embolism over the years of the registry was the improvement of diagnostic approaches using a combination of prognostic scales, measuring the level of D-dimer, as well as multi-spiral computer angiopulmonography. Another reason for improving outcomes of treated patients was the optimization of anticoagulant therapy [6; 7].

**Materials Methods**

We analyzed the results of endovascular intervention in 34 patients with THVLE who were

hospitalized in the 2nd clinic of the Tashkent Medical Academy from 08/01/2016 to 02/01/2019; 19 patients were female, 14 patients were male, aged 30 to 70 years. Patients turned on 3-8 days from the onset of the disease with complaints of edema and soreness of the lower limb. Etiological factors included the following: postoperative period after orthopedic surgery, abdominal interventions, hormone therapy, and idiopathic thrombosis.

All patients were admitted to clinics on average  $2 \pm 4$  days from the onset of symptoms of acute venous thrombosis. Endovascular interventions were performed 1-3 days after receipt. The difference in the circumference of the lower extremities averaged: in the middle third of the tibia  $+ 3 \pm 5$  cm; in the middle third of the thigh  $+ 5 \pm 7$  cm. The diagnostic stage was started with ultrasonic duplex scanning (UZDS). During the ultrasound examination, the level of thrombosis and the nature of the thrombus were determined. We used the classification of LET (Lower Extremity Thrombosis).

**Results and discussion**

In order to achieve the objectives of the study, 105 patients were examined, the results of the examination and treatment of patients with acute deep vein thrombosis of the lower extremities were analyzed, and who received treatment in the emergency surgery department of the TMA multidisciplinary clinic for the period from 2014 to 2019. Of the 105 patients, the risk of factors was as follows (Table 5).

Table 5.

<b>Risk Factors</b>		
Risk Factor	Abs.	%
Long-term immobilization	6	5,7
Injuries / fractures	7	6,6
postpartum	7	6,6
postoperative	10	9,5
Hormone therapy	14	13,3
Idiopathic nature	61	58

Upon admission, a thorough collection of complaints, medical history and physical examination was carried out. The most common symptoms are

edema and pain in the lower extremities, which shows a high diagnostic significance (Table 6).

Table 6.

#### The clinical picture of THVLE upon admission to the clinic

Symptoms	Edema	Pain	Cyanosis	Cramps	Lack of symptoms
Abs.	102	100	20	15	3
%	97,1	95,2	19	14,2	2,8

These symptoms are the first sign of patient alertness and are the reason for seeking medical help. It is the clinic of impaired venous outflow from the lower extremity that leads to a decrease in the QOL of patients

with THVLE, affecting both the physical functioning of a person at home and in society, and psychological status.

Table 7.

#### Prescription THVLE in Patients on Admission

Prescription	1-3 day	4-7 day	7-10 day	11-14 day
Abs.	48	31	16	10
%	45,7	29,5	15,2	9,5

We divided the patients into the study groups according to the duration of the disease according to two clinical signs: edema and pain in the lower extremities (Table 7). It was noted that the number of patients with edema is constant at any prescription of the pathological process, and the pain syndrome decreases in all groups with an increase in the duration of the disease, which is due to the compensatory ability of the venous collaterals. Timing of THVLE plays an important role during the course of the disease and can affect the effectiveness of anticoagulation, fibrinolysis of patients because, if a person does not experience pain in the legs, he can perform a little housework, minor physical exertion, and therefore less worry about your

condition. To determine the tactics of treatment, an important point is the determination of the localization and nature of the proximal border of the thrombus; For this purpose we used the classification LET.

1. This classification is convenient, as it reflects the clinic of the disease, the tactics of the endovascular method of treatment for THVLE and prophylaxis in the development of pulmonary embolism. 2. The nature of the proximal part of the thrombus: floating, occlusal and parietal.

3. The length and diameter of the floating part of the thrombus.

The distribution of patients into groups according to this classification is presented in table 8.

Table 8.

#### The distribution of patients by the level of thrombosis

Classification on localization	Control group (55 patients)	Abs.%	Main group (50 patients)	Abs.%
1-class			3	6 %
2-class	5	9,0 %	4	8 %
3-class	6	10,9 %	7	14 %
4-class	5	9,0 %	4	8 %
2-class + 3-class	35	63,6 %	26	52 %
1-class + 2-class + 3-class	6	10,9 %	6	12 %

According to the LET classification, in the control and main groups, class 2 is more common with a combination of class 3 (thrombosis of PBV, OBV, HBV and iliac veins), a smaller amount of class 1 (thrombosis of the lower leg veins) and class 4 (IVC thrombosis at a level below the renal veins) are almost equally patients in groups; these patients were identified interoperatively during cavagraphy at the stage of cavavafilter installation. The prevalence of these segments is most common taking into account the clinical picture. For example, with thrombosis of sural

veins, the edema is insignificant or may be absent due to passable veins-compensators (HBV) or powerful collaterals (in our study this was noted in 3 (6%) patients), and the diagnosis can only be established with instrumental methods of research. Thrombosis of OBV and ileal veins is characterized by swelling of the leg and thigh, which leads to the patient immediately seeking medical help and subsequent hospitalization. By the nature of the top of the thrombus, the following groups were distinguished: floating, parietal, and occlusal thrombi (Table 9).

Table 9.

**The nature of the proximal thrombus border in the subjects groups  
(absolute and relative values)**

Character proximal thrombus parts	Control group (55 patients)	Main group (50 patients)
Floating	7 (12,7 %)	11 (22 %)
Parietal	14 (25,4 %)	15 (30 %)
Occlusal	34 (61,8 %)	24 (48 %)

In group 1, floating thrombi were noted in 7 (12.7%) patients, in group 2 - in 11 (22%) patients. The occlusal form in group 1 - in 34 (61.8%) patients, in group 2 - in 24 (48%) patients. Parietal thrombi were noted in group 1 - in 14 (25.4%) patients, in group 2 - in 15 (30%) patients.

Thus, the obtained clinical data suggest that edema and pain in the lower extremities are of high diagnostic value in cases of suspected DVT. This allows you to refer the patient to an ultrasound scan, which is not only a diagnostic tool, but also an indicator of the effectiveness and thrombosis, thrombolysis and the duration of the ACT. The most common patients are those with thrombosis of the iliofemoral segment (a combination of grade 2 and grade 3 according to the LET classification) and with thrombosis of DFV, SFV and popliteal vein (grade 2 according to the LET classification)..

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