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Tutorial to prepare for practical classes in the Faculty of surgery for the students of the course 4 medical, Pediatric, medical-preventive and dental faculties

**VARICOSITY VEINS OF LOWER EXTREMITIES**

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Varicose disease is extremely common disease. Its complications reduced work capacity, quality of life, are often the cause of disability and sometimes death of the patient.

The tutorial describes the anatomical structure of veins of lower extremities, particularly the change of hemodynamics in pathological varicose veins. Set out the understanding of the mechanisms, causes the development of varicose veins. Address issues of diagnosis and differential diagnosis of the disease. Held description of conservative and surgical treatment of varicose veins. Substantiates the importance of early detection of varicosity and its preventive treatment.

The manual is intended to prepare for practical classes in the Faculty of Surgery students 4 course medical, Pediatric, medical-preventive and dental faculties.

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Tutorial considered and recommended for printing FIGURE OrGMA.

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INTRODUCTION

Varicosity veins of the lower limbs (VBVNK) is the most common pathology of peripheral vessels and is often the cause of reduced quality of life, temporary incapacity until resistant disability.

According to epidemiological data from different forms of this disease occur in 26-40% and 10-20% women men of working age. The annual increase of new cases in a population of VBVNK inhabitants of industrialised countries reaches 2.6 per cent for women and 1.9% for men.

VBVNK is accompanied by a number of clinical manifestations and complications (bleeding, varikotromboflebity, trophic skin changes, trophic ulcers), significantly reduce the employability and quality of life of patients.

High prevalence of rapid rejuvenation, life-threatening complications require timely diagnosis and adequate treatment of varicose veins, which constitutes an important medical and social problem.

Within this tutorial assumes development of students following competencies in accordance with the requirements of the GEF 3 generation: OK-1, PC-5, 17, 19, 20, 27.

**The purpose of the study topics**

**U** header at the level of play from memory the etiology, pathogenesis, classification, varicosity clinic.

Skills training clinical examination of patients with varicosity.

Master issues diagnosis, differential diagnosis, choice of methods of treatment of patients with varicosity of the lower extremities.

BRIEF ANATOMIC-PHYSIOLOGICAL DATA

Shared rear finger veins, forming part of the skin of the rear foot, venous network anastomoziruja between them, form the back Arch of the foot. The deep venous system of the foot is formed of paired veins attendants accompanying artery. These veins form two deep arc-back and Plantar. Superficial and deep arc associated with numerous anastomozami. From the back of a deep arc formed front tibial veins from the Plantar posterior tibial veins. Superficial and deep venous system of foot related kommunikantnymi veins without valves on which blood comes from the system of deep vessels in the surface.

Venous system of the tibia presents three pairs of deep veins-bolshebercovymi (front and rear) and the fibula, and two surface-podkozhnymi big and small veins.

Popliteus Vienna-short barrel, formed by the merge of the deep veins of the lower leg. The role of popliteal vein in the implementation of the outflow of blood compared with any other venous line the most significant because it is the only major vessel on this site. Width clearance popliteal vein ranges from 9 mm to 11 mm.

The veins of the thigh: Femoral vein is divided into superficial and General, which is located proximal to the confluence of the deep veins of the thigh. Femoral vein begins at the level of the condyles of femur. Tributaries of the femoral vein have a rich system of iliac veins. The femur is usually determined by the Vienna 3-5 valves. Its width clearance shall not exceed 12 mm. In some cases the femoral vein is revealed in the form of two shafts, connecting lower Croup. The deep vein of the thigh runs on the lateral side in the femoral vein in the top third.

Perforating veins of the thigh is usually not direct. Located in the lower and middle third of the thigh, they often have transversely and unite a large hypodermic and femoral veins, their number ranges from 2 to 4.

Large subcutaneous vein (BPV) goes on the front edge of the inner shank of ankle, then runs along the medial edge of the tibia medial condyle skirts and goes on the inner side of the thigh.

Large subcutaneous Vienna (saphena magna) can be represented by 1-3 barrels Doubling great saphenous vein is found in 25% of cases. The mouth of BPV is in the area of an oval fossa, where Terminal Division It flows into the femoral vein. Safenofemoralnyj anastomosis may be located at a distance of from 2 to 6 cm below the pupartovoj ligament. Throughout the many tributaries flow into BPO, collecting the blood not only from the lower limbs, but also on the external genitals, abdominal wall skin, hypoderm gluteal region. Width clearance BPV OK -0.5 0.3 cm. It defines a 5-10 steam valves. In the area of the mouth of BPV 5 flow venous trunks: external pudendal vein, superficial nadchrevnaja Vienna, superficial vein surrounding ileum bone, zadnemedialnaja Vienna, perednemedialnaja, perednelateralnaja Vienna.

Small subcutaneous vein is the continuation of the outer edge of Vienna. Passing behind the lateral malleolus, and heading up falls on the back surface of the Achilles tendon. Approaching the midline posterior surface of the tibia, Vienna throughout a single barrel, rarely two. Reaching the popliteal fossa, it probodaet a deep piece of fascia, empties into the podkolennuju vein. In the upper third of the tibia small subcutaneous vein forms many anastomoses with a system of great saphenous vein.

Superficial veins are communicated with deep through perforans and kommunikantnyh veins. The total number of perforans veins exceeds 100.

PHYSIOLOGY OF VENOUS SYSTEM OF THE LIMBS

Current venous blood in the lower extremities is directed from the outside inwards and upwards, i.e. against gravity. Valves are opened, when blood flow is directed toward the Center, and closed when it is directed from the Center.

Force push venous blood from the periphery to the Center, can be divided into two types: active bottom (push) and top-prisosnoe "pulling effect".

The forces acting on the bottom (push):

-            residual blood pressure, transmitted on the veins;

-  systolic and diastolic, the movement of the walls of the arteries affecting veins;

-            impaction of the Plantar venous Doug;

-            muscle-vein pump at the expense of leg muscles.

Forces from above-prisosnoe (flying):

-            the change in pressure in the abdominal cavity;

-            change of pressure in the chest cavity;

-            pressure change in perikarde.

The value of "the pusher" forces, seem to be more constant, whereas "painless" strength depends on many different factors. With regard to the work of the muscular venous pump-it is necessary to remember the axiom: blood flow directed to the Centre opens the valves; blood flow directed from the Center closes the valves. In an idle state when the muscles are relaxed, the valves are open and do not prevent hydrostatic pillar of blood between the heart and the foot. When the pressure in the deep and superficial veins of the lower limbs on one level uniformly (about 10 mmHg). As a result of muscle contraction mechanical compression leads to increased intramuralnogo pressure, both deep and superficial veins, and due to the presence of valves to centropetalnomu blood. When relaxing muscles intramuralnoe pressure in deep veins takes greater than surface, resulting in blood comes not only from the underlying deep vein segments, but also through kommunikantnye veins of superficial veins.

ETIOLOGY AND PATHOGENESIS

A number of theories to explain the development of varicose veins. Supporters of the mechanical theories explain the emergence of diseases difficulty blood outflow from the lower extremities due to extended stays on his feet or compression of the veins. The evidence contains statistics of comparatively large frequency of varicose veins in people of certain professions (surgeons sellers, movers, etc.), people suffering from constipation and cough, in pregnant women. However, from the perspective of this theory cannot explain why half of all sufferers there is only one-way, varicose veins, although both limbs are in identical conditions. Proponents of the theory believe that valve insufficiency disease occurs either due to a congenital absence of venous valves, either due to their functional insufficiency hypoplasia. However, direct evidence in favor of congenital deficiency of the valves a little. Supporters of neuroendocrine theory of importance in the development of varicose veins attached to the violation (weakening) tone of the venous wall due to hormonal adjustment in the body (pregnancy, menopause, puberty, etc.). However, this theory is also unable to exhaustively explain the complex pathogenesis of disease, since most varicose veins is not accompanied by nejrojendokrinnymi disorders.

According to some authors, of considerable importance in the occurrence of varicose veins are hereditary factors. So I've noticed that this disease is fairly common in people whose parents had a similar disease.

Some researchers believe that in the development of varicose veins leading role belongs to arteriolo-venuljarnym anastomozam. Normally, they are all human beings, but in normal circumstances, closed and do not function. Under the influence of unfavorable factors (a profession associated with the ortostaticheskim position, impeding the outflow of blood from the lower extremities; squeeze veins tumors; hormonally-nervous restructuring the body during pregnancy, menopause; infection and intoxication; constipation, cough) arteriolo-venuljarnye anastomoses are expanded and become functionally active. As a consequence, in the veins of the lower extremities begins to do large amounts of blood at a higher pressure, veins expands and develops secondary valve insufficiency and varicose nodes.

These data suggest that the appearance of varicose veins due to the simultaneous exposure to several factors, which can be divided into two groups: s) predisposing-congenital or acquired changes veins; the presence of inactive arteriolo-venuljarnyh anastomosis; neuroendocrine disorders, lowering the tone of the walls of veins; b)-producing factors causing increased pressure in the veins of the lower limbs and difficulty in venous blood outflow.

Increased pressure in the venous trunks with varicose veins leads to failure of the valves in the system kommunikantnyh veins. In this connection, the blood from the deep veins under the influence of muscle contraction is pushed in superficial veins. Raises local venous hypertension, especially expressed in the lower third of the tibia on the medial ankle, where there are major kommunikantnye of Vienna. Increased pressure in the venous circulation departments, leading to the disclosure of arteriolo-venuljarnyh anastomosis. As a result, reduced blood flow in the capillaries, reduces tissue perfusion and oxygen supply (local tissue hypoxia), a pathological blood capillaries and venules, accompanied by violations of rock properties of the blood. In the lumen of the vessels decreasing content of albumin and increases globulin krupnodisperstnyh. It promotes aggregation of loose blood blocking the Terminal vascular track. There is a further deterioration of the capillary blood flow as by reducing the number of functioning capillaries and slowing down blood flow to them and their external compression due to increased interstitial pressure. In perikapilljarnom space accumulates a significant amount of fluid, electrolytes, uniform of blood plasma protein. The protein stimulates the development of connective tissue in the skin and subcutaneous tissue, causing gialinoz and sclerosis of the walls of small blood vessels and capillaries, until the closing of the clearance. In tissues, metabolic processes are violated that clinically manifested by swelling and development of trophic disorders (preulceroznyj Dermatitis, eczema, ulcers).

Pathological anatomy. Varicose veins expansion exposed mostly subcutaneous veins of the lower extremities, are part of the great saphenous vein. Varicose veins expansion very rarely exposed branches small saphenous vein. At the beginning of the illness occur hypertrophy and tumor cellular elements, resulting in a significant thickening of the vein wall. In the future, parallel and muscle hypertrophy of elements going their deaths with subsequent reproduction of connective cells. Stretching of the venous wall, caused by the death of muscle cells of subcutaneous veins, stimulates the production of collagen fibres, fibroblasts. Neural elements located in the wall of the vein, are involved in the process again and create a new negative factor leading to loss of function of the smooth muscles of the venous wall-atony. Varicose vein wall dramatically thickens, but this thickening unevenly and alternates with a significant thinning of the walls in some places. Vienna extended, is a winding, it formed multiple push, sometimes reaching a diameter of 2-3 cm. In addition, the overwhelming majority of patients (85%) with varicose veins of lower extremities has expressed throughout the trunk valve insufficiency great saphenous vein.

Pathological physiology. The pressure in the veins of the lower limbs is significantly changed with the change of the position of the body when driving. In the initial stages of dilatation, when no signs of insufficiency, venous pressure, defined in an upright position the patient corresponds to normal numbers-75-120 mm water column. In the further course of the disease and especially if there are signs of insufficient pressure in varicose veins increases to 500-800 mm water column. and more. Increased venous pressure in the surface veins leading to further disclosure physiologically inactive prekapilljarnyh arteriovenous anastomoses which resets the arterial blood in the veins, which in turn further enhances venous pressure. When standing and walking in these patients occurs violation outflow of blood from the veins of the lower limbs, its stagnation in the veins in the amount up to 500-1000 and even 2000 ml. The pressure in the veins of the legs and feet can be higher blood pressure. This leads to difficulty in moving the blood from the capillaries of the skin and subcutaneous tissue in venules and veins with the development of stasis in arteriolah and capillaries and the liquid part of the blood into the tissues, skin and hypodermic cellular tissue with subsequent development of trophic changes on the shins and feet.

MECHANISM OF VARICOSE VEINS

Based on a lengthy study of varicose veins most scientists came to believe about hereditary, genetically deterministic nature of the disease. Cause of varicose veins is a hereditary weakness of their walls. Venous valves come from the walls of veins. Are normally of two shutters, which are oriented towards the heart. In the field of valve attachment to the wall of the vein diameter, slightly more. Normally, when before the valve cusps blood from the upstream Division can not penetrate the underlying. Valves in veins are distributed unequally. If the valve is, for some reason not fully closed, then the blood is moving up and down, what is called venous stagnation and varicose veins below the idle control valve. Varicose veins are caused progressive failure below located venous valves and blood cannot varicose Vienna move towards the heart. Its stagnation occurs, which is manifested by swelling, hyperpigmentation, thrombophlebitis, and in neglected cases, trophic ulcers. Changes the whole mechanism of venous outflow.

Factors that contribute to varicose veins expansion: increased workload on the veins with genetically weak wall-long standing on legs or sedentary work, lifting and carrying heavy loads, wearing shoes with high heels, lack of movement of leg muscles are the main contributing factors to the development of varicose veins and syndromic varicosity.

Producing cause of varicose veins happens abrupt physical overexertion, pregnancy and childbirth. With such a burden a sharp increase of pressure in the veins of the lower limbs and damage pump apparatus that launches mechanism of varicose superficial veins. Varicose veins appear in the place where there is a lack of blood and discharge valve in direction of the deep veins in the external. Gradually overflowing Vienna stretched that lead to stretching the next valve and so on. Varicose veins are a pathologic entity and does not perform its function, thus disabling them from circulation (removing or hardening) leads to improvement in venous outflow.

HIGHLIGHTS OF THE PATHOGENESIS

1. The primary valve insufficiency of the superficial venous system.

2. secondary functional valve insufficiency of superficial venous system.

3. An obstacle on the way of venous outflow from extremities is usually purely mechanical obstacle, such as the uterus, tumor thrombus (as a result of suffering a thrombophlebitis).

4. functional deep vein valve insufficiency (we will explain this phenomenon separately).

5. functional valve insufficiency of perforans veins.

6. change of tromboticheskoj and fibrinolytic activity of blood-these changes may lead to thrombosis, which is not always evident clinically, but always leads to violation of venous hemodynamics.

7. Arterial-venous anastomoses-it can be both congenital and acquired by the State in which of the arterial system into the venous arterial blood flow takes place, that sharply increases the pressure on the venous wall (wall veins anatomically cannot withstand such a flow of blood).

8. Changes in hormonal background. This is very important, so we'll focus on it in more detail. As you know, women are more prone to varicose veins than men, this fact is connected with steroid hormone imbalance. Proof of this are: as mentioned, men suffer from varicosity less than women; painful symptoms were significantly more likely to occur in women than in men; the emergence of the varikozno expanded veins and pain in them are often cyclical and linked to levels of sex hormones. Proof of this are the following facts: a) changes in the veins occur during pregnancy and after childbirth take place; many women during pregnancy suffer from pain in the affected veins, which they didn't have before pregnancy; b) varicose changes increasing pregnancy increases; in a significant number of) women experience pain in the extremities, pain usually is localized in veins, before menstruation; in the second half of the menstrual cycle in healthy diameter and varicose veins increases. Some authors have noted that among women with varicosity, percentage of premature termination of pregnancy is lower than in other groups. Pain symptom decreases when the appointment of hormones. There is a mention that some women experience pain the veins of the lower extremities after "lovemaking".

9. Hereditary and congenital factors.

10. prolonged human upright (usually).

CLASSIFICATION OF VARICOSITY CEAR

(clinic, etiology, Anatomy, pathophysiology)

(I) Clinical classification

Class-absence of vein disease symptoms when inspection and palpation;

Class 1-Telangiectasia and reticular veins;

Class 2-Advanced esophageal veins;

Class 3-presence of edema;

Class 4-skin changes (pigmentation, venous eczema,

lipodermatoskleroz);

Class 5-skin changes, zazhivshaja ulcer;

Class 6-skin changes and an active ulcer.

(II) Etiological classification.

1. congenital diseases;

2. Primary Varicosis with unknown cause;

3. secondary varicose veins with a known cause:

posttromboflebiticheskoe, trauma, others.

(III) . Anatomical classification

1. Superficial veins depending on anatomical

the localization and the nature of varicose veins;

2. Deep veins depending on segment destruction;

3. lower vena cava;

4. The iliac vein;

5. Pelvic veins;

6. Perforant veins;

7. Muscle veins depending on anatomical localization.

IY Pathophysiological classification.

1. Reflux

2. Obstruction (occlusion)

3. Reflux + obstruction.

Forms of varicose veins

1. Vnutrikozhnyj and segmental varices without pathological Weno-venous reset.

2. Segmental varicose veins with reflux of superficial and incompetent perforate veins.

3. Common varicose veins with reflux of superficial and incompetent perforate veins.

4. Varicose if there is reflux in the deep veins.

The degree of chronic venous insufficiency

0-no

1. -heavy legs syndrome»

2. -transient edema

3. -persistent edema, hyper or hypopigmentation,

lipodermatoskleroz, eczema

4. -venous trophic ulcer.

Complications: bleeding, thrombophlebitis, Phlegmon.

Using the proposed classification-diagnosis can be made. For example: varicosity with reflux of the great saphenous Vienna to hip, CVI- (II) Church.

THE CLINICAL PICTURE

Varicose veins appear much earlier than fatigue, pain and other symptoms of the disease. There is no strict parallelism between the degree of varicose veins, complaints and anatomical changes in the limbs.

60-65% of patients aged 30-50 years, 15%-over 50 years of age and 20-25% are younger than 30 years. The incidence of young men and women the same. In the older age group women accounted for 66% and men only 34%. The left limb varicosity strikes at 26.5%, right at 16 percent, both lower limbs-57.5% of patients. With bilateral lesions of the left limb usually suffers more, increasingly vulnerable to decompensation and complication of the disease.

Mainstream dilatation occurs in 60.3% and diffuse-39.7% of patients. Diffuse expansion of increasingly complicated valvular insufficiency insufficiency flebogemodinamiki and trophic disorders.

More likely (71%) Varicose develops great saphenous vein system, rarely (19%) are in the system of large and small subcutaneous veins together and only 10% of cases only a system of small saphenous vein.

Onset date most patients associated with heavy physical work, long walking, bike riding, pregnancy and other factors. About 78% of patients indicate a varicose disease among close relatives. Often patients with varicose veins, hernia or hemorrhoids are found flat feet. All these indicate a congenital weakness of the connective tissue.

60-80% of patients with varicosity no complain and dilatation believe only a cosmetic defect. Ailments of the non-permanent nature only appear for disorders of circulation. Marked heaviness, fatigue, parastezii and blunt raspirajushhie pain in the affected limb. Complaints more pronounced when standing, walking and disappearing into the horizontal position of the patient. Some patients complain of night cramps in the calves, especially if they sleep, heat covered. With the progression of dilatation these cramps disappear. Patients feel worse in hot weather. The legs are more tired when working in a standing position, in hot shops, walking for extended periods of time when conditions are created for overfilling veins and swelling in the legs. Many patients become swollen feet during pregnancy before menstruation, and during it, and varicose veins are filled with and grow, causing fatigue, pain. During pregnancy often develops a dense network of small veins on the feet, in the area of the ankles, groin, suprapubic veins and veins of the external genital organs. After birth these phenomena disappear; remains and progresses of varicose veins of the leg, which is enhanced with each pregnancy.

Foot pain is never intense, painful. When vacation all unpleasant sensations disappear.

When inspecting visible winding, translucent through the skin or even protruding outward trunks and conglomerates of varicose veins. Because of the dense network of small varicose veins area of ankles and foot thicken and become bluish in color. Horizontal sinjushnost disappears. Limbs should be inspected from all sides, establish whether Flatfoot, draw attention to hernias, varicose veins of the spermatic cord, hemorrhoids.

Using a tape measure, find out how at various levels of the sick limb thicker healthier. Oteke limb difference by evening in the volume may distigat 2-3 cm. After the swelling subsides and the amount of limbs 1-2 see decreases. Swelling of limbs reveals decompensation disease and sudden violation of her flebogemodinamiki. First appears in the swelling of your ankles, the rear foot, and then extends to the lower leg. At pressing on swollen Shin remains fossa.

By palpation will determine the trunks and nodes of varicose veins, their filling. Usually feeling out in the subcutaneous fat or scar tissue dilated veins and holes in the tibia in the Aponeurosis perforantov failed. Invisible varicose trunks in the subcutaneous fat limb easier to detect in samples from Schwartz and Gakenbruha. Changes in skin temperature detected by palpation, or more precisely, jelektrotermometrom. Over the veins and inflammation of the skin temperature higher than the surrounding skin and symmetrical stretch of healthy limbs. This difference increases in vertical position of the patient.

When decompensation varicose veins and swelling limbs grow, appear sweating and itching, growing at night, that is a harbinger of venous complications. By the decompensation and trophic disorders faster leads Perforator veins. Complaints and trophic disorders limbs depend mostly on flebogipertenzii, which dramatically increase the physical work and other efforts. When extending and insolvency valves great saphenous vein symptoms are less pronounced and progressing slower than the impact of the small saphenous vein. Most malignant for varicose veins, ulcers and induraciej increasingly rapidly, there is a default of the perforant veins nadlodyzhechnyh.

With the progression of the disease are increasing swelling, itching appears dry or moist eczema, the skin of the lower part of the tibia becomes a dark brown, shiny, easy vulnerable. Recurring inflammation of subcutaneous fatty tissue turns into scar tissue, in which plastered Vienna itself, with hypodermic skin becomes motionless, hard scars podkozhnymi m related veins. Varicose veins "hidden" in the tissue, become less noticeable, and decompensation of the function of the veins due to the progressing of sclerotic changes their walls and valves even bigger increases. Bricked in vein scars can no longer decline, their walls in some places dramatically thin and under the influence of efforts or even a small injury break. Blood pours into the subcutaneous fatty tissue, forming a bruise or limited hematoma, which is organized by increasing induraciju and hyperpigmentation. If the torn wall veins and thinned skin over it then begins an intensive venous bleeding, because sklerozirovannaja Vienna did not spadaetsja, and bleeding is supported by hypertension. Blood from the lowered down limbs pours Jet. Sometimes the bleeding is caused by perforantnoj or other uzuraciej veins at the bottom of varicose ulcers. This bleeding is stronger and its even harder to stop. When you lift your legs up and pressing bandage the bleeding stops. In place of gap varicose ulcer usually develops sites.

Eczema and dermatitis are prone to recurrence. Relapses can be caused by overwork, promokaniem, limb trauma, medication, etc. every exacerbation of eczema, dermatitis or cellulitis (inflammation of the subcutaneous fat) amplified induration tibia, degenerative changes and insolvency of the veins. Repeated inflammation and scar tissue lymph obliterirujut expanding cracks and lymphatic vessels that leads to lymph drainage, the development of secondary Lymphedema and elephantiasis even.

Flebogipertenzija, breach of Microcirculation, thrombosis and inflammation of small vessels dramatically violate the food and the oxygenation of tissues, which leads to their nekrobiozu and the formation of varicose ulcers. Most frequently ulcers occur on the inner surface of the lower leg above the ankle, rarely above or behind the outer ankle. Such localization of ulcers cause the greatest flebogipertenzija in these parts and the lack of suction blood muscle arrays. Elsewhere varikoznae ulcer rarely formed. Often the sores are very painful, are rapidly increasing, with abundant purulent secretions. Bottom of the ulcers often reaches the Aponeurosis, and edges become dense, gialinizirovannymi, raised. Around the ulcer usually observed wide area comes and hyperpigmentation.

Ulcers often do not heal for months and years, replaced by a gross scar with delicate skin above it, which tends to izjazvljatsja again. Hard work, exhaustion, injury or prolonged walking cause frequent recurrence of varicose ulcers. Chronic ulcers may regenerate malignant.

Eczema, Dermatitis, cracked skin and especially ulcers are the gateway of the infection. Infection and autosensibilizacija tissues cause thrombophlebitis, varicose veins, but more often the aseptic.

Trombirovanne Vienna rekanalizirujutsja over time, but their function is even more disturbed because of remaining organized wall of blood clots and destruction of the valves.

Thus, repeated trromboflebity increase dekompensaciju and accelerate the progression of the disease. Sometimes a thrombosis of the subcutaneous veins extends into deep veins.

CLINICAL DIAGNOSTICS

Diagnosing varicose veins of lower extremities would solve several tasks:

1. Identify and view the pathology of venous system of the lower limbs.

2. Assess the patency of the deep veins and viability of the deep veins valve apparatus.

3. Identify reflux on subcutaneous and incompetent perforate veins.

4. Differentiate the nature of venous diseases (varicose or postromboflebiticheskaja disease, arterio-venous fistula, congenital vascular malformations, etc.).

For correct diagnosis and selection of necessary diagnostic studies should examine carefully the anamnesis and complaints of the patient.

It is important to clarify the following details history: when signs of varicose veins, varicose veins, the dynamics of trophic ulcers, had there been any thrombophlebitis and thrombosis of deep veins, the time of swelling lower limbs, Erysipelas inflammation, injury.

Need to find out the features of labour (prolonged standing or sitting), concomitant diseases, active sports, hormone therapy (contraception), features casual wear (corsets, tight pants, underwear, etc.).

When collecting history, you need to find out possible long-term immobilization and other conditions that can cause latent deep vein thrombosis occurring.

It is important to identify intercurrent diseases, and especially arterial pathology, a typical sign of which is the syndrome peremejateisa hromota and ischemic pain, growing in the position of the patient lying on his back and dwindling in seated or standing.

In addition to peripheral vascular diseases, pain in the lower extremities can provoke diseases musculoskeletal (osteochondrosis, scoliosis, Herniated Shmorl, arthrosis-arthritis, tendovaginitis, Myositis, plokostopie, etc.).

Nightly muscle cramps not related to VBVNK symptoms pathognomonic, but their presence can be part of patients with diseases of the veins.

Pain, lokalizujushhajasja on the front, rear and lateral thighs, most often indicates a radicular syndrome in spinal diseases.

Pain in the knee joint, increasing walking and squattings is a typical symptom of arthrosis-arthritis. Sharp and pulling pains in the groin can be caused by osteoarthritis coxae, account should be taken of the possibility of toxic or diabetic neuropathy.

Tingling sensation and restless legs syndrome "is often associated with damage to the veins. And stinging sensation in the legs and fingers stop may be due to jeritremiej or jeritromegaliej.

The most characteristic manifestation of lower extremity venous system disease is fatigue in the legs after a long ortostaza. These symptoms usually diminish or completely disappear after walk, as well as giving the legs elevated position.

Clinical examination must be carried out with good lighting when standing and lying. When the patient has completely bare foot and stand motionless for several minutes. Necessarily inspected both lower limbs (on all sides), as well as the inguinal area, the anterior abdominal wall and lateral surface of the abdomen.

Particular attention should be paid to the availability of advanced intradermal and subcutaneous veins, large and small tributaries of subcutaneous veins, as well as the presence of edema and trophic disturbances skin lower leg and foot. Palpation to detect defects in the fascia (Fegana), corresponding to an output insufficient perforant veins, identify signs of thrombophlebitis, and define the boundaries of the zone of indurative cellulite.

Palpatornaja sample (Gahenbruha) in some cases allows you to diagnose valve insufficiency trunk subcutaneous veins.

Always in a survey of the patient, you must determine the pulsating arteries limbs at all levels.

Modern diagnostics of varicose veins and other diseases veins limbs should be based on the data of special instrumental research methods because different physical examination methods of the venous system (samples Troyanova-Trendelenburg, Delbe-Pertesa, Pratt, Shejnisa, etc.) often not informative (the authenticity of 45-47%).

Ultrasonic dopplerography is a priority that must be performed in all patients with VBVNK. This method allows you to quickly and reliably assess the patency of arterial veins, reveal the most pathological Weno-venous refluxes. An extra dimension to the ankle-brachial index allows you to discover related arterial insufficiency and coordinate treatment.

Duplex scanning with colour coding blood flows is the most informative method of examination of patients with VBVNK, enables you to obtain complete information about the State of deep, perforant veins and subcutaneous, allows mapping of subcutaneous and perforating veins, monitor the results of the treatment. It is obligatory in all cases pronounced trophic disorders, relapses of the disease, as well as with ultrasonic doplerografii, pointing to the defeat of the deep veins.

To obtain comprehensive information and monitoring the pathophysiological can be used different variations of plethysmography (IPG) (artefact, occlusal plethysmography), flebotonometrija, etc.

High self-descriptiveness of ultrasonic methods to assess the condition of the venous system of the lower limbs allows in most patients VBNK produce x-ray contrast flebografiju with diagnostic survey.

Rentgenokontrastnaja venography shows patients with secondary varicose veins (congenital vascular malformation, post traumatic violation of venous drainage, etc.), as well as in patients with chronic lymphavenous failure.

SURGICAL TREATMENT

Feature of VBVNK patients in our country is that they seek medical help with the prevalence of clinically expressed and complicated forms of the disease, the basic method of treatment should be considered surgery.

Indication for it is pathological reset blood from deep venous system in surface, regardless of whether trophic disorders.

Eliminating such reflux using flebosklerozirujushhego treatment cannot be recommended.

The indication for surgical treatment is compulsory if VBVNK should be considered as a progression of chronic venous insufficiency with the advent of trophic disorders and complications (bleeding, varikotromboflebit, etc.).

Surgical treatment is also shown in patients with moderately severe and severe forms if there are insufficient valve apparatus of subcutaneous routes and perforant veins.

Basic principles of surgical treatment are as follows:

-Elimination of pathologic reflux of blood from deep veins in the superficial at all levels;

-removal of varicose superficial veins;

-unchanged big and small segments of subcutaneous veins, especially in the lower leg it is advisable to save.

Obligatory stages of surgery with VBVNK are:

1. Lower ligation and crossing big and/or small subcutaneous veins with all its tributaries (the remaining operation-Trendelenburg);

2. The intersection of and bandaging insufficient perforant veins (Kokketa);

3. Remove stems of subcutaneous veins, given the length of their valve insufficiency and varicose transformation.

Unmodified subcutaneous vein segments, subject to the continued functioning of the valves, it is advisable to save. Such an approach towards the subcutaneous veins is shown to prevent probable injury of nerve trunks and lymph collectors as well as with regard to the possible use of veins as a plastic material for arterial reconstruction in subsequent.

To perform phlebectomy is useful, flexible, venjekstraktory with interchangeable nozzles. When you delete a subcutaneous veins can be used plain, but preferably invaginacionnuju technique, as well as the stem fleboskleroobliteraciju. Two recent technology increasingly protect from damage sensitive skin nerves, and lymphatic vessels. Intraoperative stem fleboskleroobliteracija effective in diameter not exceeding 10 mm and veins.

Excision of varicose veins tunnel method (Naratu) is now considered erroneous. Scope and invasiveness of surgical intervention can be significantly reduced through post-operative sclerotherapy, which also allows you to achieve a good cosmetic result. After completion of surgery, you need to create a flexible compression of the lower limb.

It is very important to maximize early activation of patients after surgery, which is one of the effective ways to prevent postoperative venous thrombosis.

In patients with VBVNK with severe Shin trophic disorders, with symptoms of cellulite that cannot be countered quickly, surgery makes sense to hold in two stages. First remove reset through the saphenous-femoral fistula, and remove the barrel great saphenous vein in the thigh (stripping). Thus favourable hemodynamic conditions for weakening phenomena inflammation. Subsequently (after 3-5 months), if necessary, carry out the second phase of the intervention on the tibia, which includes jepifascialnuju and kommunikantnyh of the perforant veins ligation (operation Kokketa).

In the presence of deep vein valve insufficiency patients in need of specialized in Phlebology offices to decide whether intervention on the valves.

Various plastic valve intervention subcutaneous and perforant veins are currently at the stage of clinical development and are not recommended for widespread use.

PHLEBOSCLEROSING TREATMENT

Phlebosclerosing therapy is a method of treatment of varicose veins. Fleboobliteracija is a surgical procedure.

As an independent method of treatment flebosklerozirujushhuju therapy can be applied in the absence of pathological both vertical and horizontal Weno-venous reflux.

Indications:

-reticular (vnutrikozhnyj varices) and Telangiectasia;

-segmental varicose tributaries trunk subcutaneous veins;

-the period after venjektomii (obliteration deliberately deleted varicose veins).

Additional indications for the use of flebosklerozirujushhego treatment may be:

-stopping or prevention of bleeding from veins;

-obliteration of varicose veins trophic ulcers goals with a view to its early closure. When this trophic ulcer should be at the stage of granulation or epithelization.

In patients with varicosity with pathological Weno-venous effluent, phlebosclerosing treatment may be performed after surgery.

To conduct treatment flebosklerozirujushhego shows how to use the standard (factory) solutions drugs, registered and approved for use in the country. Breeding standard drugs are not desirable.

Featured flebosklerozirujushhih concentrations of drugs depending on the diameter of Vienna are presented in table 1.

Table 1

The optimal concentration of flebosklerozirujushhih

drugs depending on the diameter of the Vienna

|  |  |  |  |
| --- | --- | --- | --- |
| The diameter of the Vienna | Fibro-Wayne | Trombovar | Jetoksisklerol |
| <0.4 mm | 0.2% | - | 0.5% |
| -2 0.6 mm | 0.2 -05 | - | 1-2% |
| 3-5 mm | -1 0.5% | 1% | 2-3% |
|  5 mm | 3% | 3% | 3-4% |

Phlebosclerosing treatment must comply with the doctor (surgeon or vascular surgeon) that has passed special training, the level of theoretical and practical knowledge which is confirmed by the certificate of the established sample MINISTRY OF HEALTH of the RUSSIAN FEDERATION.

Sclerotherapy should be in a horizontal position. This prevents possible Dystonic reaction (dizziness, tachycardia, hypotension, loss of consciousness, etc.). In addition, in a horizontal position, the conditions are created for postural drainage veins, resulting in significantly reduced blood flow and pressure in the veins. All this creates favorable conditions for reliable fleboskleroterapii. Introduction of Sclerosing drug should be strictly intravazalno. Inability to perform controlled intravazalnoj injection is a contraindication to sclerotherapy.

After the introduction of the flebosklerozirujushhego of the drug require immediate and adequate elastic compression. For the treatment of teleangioektazi and reticular veins it is expedient to apply the technique of micro-sclerotherapy using low concentrations of sklerozantov. You should not perform more than 5 injections in one procedure. Amount of the drug that is entered during one injection should not exceed 1 ml. That is, the maximum single dose of the drug flebosklerozirujushhego is 5 ml.

Repeated treatments better conduct not earlier than through 2-3 week.

Continuous 24-hour elastic compression in the treatment of varicose veins kalibra0, 5-0, 6 cm or more shall be 10-14 days. For varicose veins retikuljarnogo this period is 3-5 days.

In order to save Sclerosing preparation can be used Foam - foam sclerotherapy (apply introduction stand melkodisperstnoj foam Sclerosing 1-3%). For complete control of intravenous drug use flebosklerozirujushhego echosclerotherapy. Under continuous ultrasound scanning punktiruetsja varicose vein and injected a drug desired volume and concentration.

Alternative treatments for teleangioektazi, such as lazerokoagulyatsia, fonodermoterapija, ozone therapy, electrocoagulation, less radical, and give a high percentage of relapse in the immediate period after treatment.

Absolute contraindications to sclerotherapy are:

-severe systemic disease;

-thrombosis of deep and superficial veins thrombophlebitis;

-local or general infection;

-sedentary patients;

-Allergic Diathesis;

-lactation;

-trombofilicescie condition;

-Obesity;

-inability to control intravascular injection.

CONSERVATIVE TREATMENT OF VARICOSE

DISEASES OF VEINS OF LOWER EXTREMITIES

Conservative therapy shows patients where surgery for one reason or another cannot or is delayed. Conservative treatment was also shown in patients with severe CVI to prepare for surgery, as well as to patients for their early rehabilitation in postoperative period.

The main objectives of conservative activities when VBVNK are: removal of CVI, relapse prevention diseases, rehabilitation, improving the quality of life of patients. In accordance with the objectives you must solve the following tasks:

-Elimination of risk factors;

-improvement of flebogemodinamiki (elastic compression, physiotherapy exercises, postural drainage, etc.);

-the normalization function of the venous wall;

-correction of lymph microcirculation, gemoreologii;

-anti-inflammatory therapy.

Regardless of the duration of the disease and the severity of CVI, all patients in need of addressing factors leading to illness.

Compression therapy (the only contraindication is chronic obliterating arteries of lower extremities lesions) while reducing regional systolic pressure on leg arteries below 80 mm Hg.

Therapeutic effect of compression treatment is determined by the following mechanisms of action:

-decrease of pathological venous "capacity" of the lower limbs;

-improved functional ability insufficient pump apparatus;

-increased tissue fluid resorption in the venous capillary and elbow filtration reduction in blood;

-increase blood fibrinolytic activity.

The main result of hemodynamic right compression treatment is to normalize the function of the muscular venous pump-lower limbs.

Flexible compression for a limited period (3-6 months) designate for the following reasons:

-surgical or phlebosclerosing treatment VBVNK;

VBVNK and its prevention of complications during pregnancy;

-the preoperativive preparation aimed at mild manifestations of CVI and the healing of venous ulcers;

-Prevention of varikotromboflebita.

Long elastic compression (over 6 months) at VBVNK shows patients who have contraindications for surgical treatment.

For compression treatment using elastic bandages.

Table 2

Types of elastic bandages

|  |  |  |
| --- | --- | --- |
| Kind of bandage | Increase of bandage | Testimony |
| Low elasticity |  <70% | Severe forms of chronic diseases of veins (HZV) (4-5 class on CEAR) |
| High elasticity |  70-140% |  HZV (2-3 class on CEAR) |
| High elasticity |  >140% | Treatment and prophylaxis of deep vein thrombosis; the postoperative period |

Along with elastic bandages are encouraged to make more use of special medical hosiery (stockings, stockings, tights).

Medical stocking divided into prophylactic and therapeutic.

Table 3

Application of compressive stockinet

Depending on the class of compression

|  |  |
| --- | --- |
| Compression class | Testimony |
| 1 | Reticular varicose veins, functional flebopatii, prevention of varicose veins in pregnancy. |
| 2 | CVI-2-3 classes according to CEAR, pregnant, after phlebectomy, skleroobliteracii |
|  3 | CVI-4-5 classes according to CEAR, acute superficial thrombophlebitis, varikotrombo-flebit, postthrombophlebitic disease |
|  4  |  Flebodisplazii |

Effective compression treatment is its regularity. Intermittirujushhej may be used for treatment of compression-used one or more section of the camera in the form of a stocking or golf.

PHARMACOTHERAPY

The main tasks when treating drugs are:

-mild symptoms (pain, heaviness in the legs, fatigue, swelling, convulsions);

-Prevention of complications (varikotromboflebit, trophic disorders);

-the preoperativive preparation and rehabilitation;

-improve the patient's quality of life.

Modern Pharmacopoeia includes a large number of flebotropnyh drugs, which can be divided into several groups.

Table 4

Flebotropnye drugs

|  |  |  |
| --- | --- | --- |
| Chemical substance | Active component | Name in RUSSIAN |
| Alpha benzpirony | Coumarins | In the Russian Federation are not registered |
| Gamma-benzpireny (flavonoids) | DiosminGesperedinMetilhalkonFlavonovaja acid | DetralexFlebodiaVazoketCyclo 3 Fort |
| Derived routing | Rutozidy and gidrooksirutozidy | Anavenol, venoruton, rutin, troxerutin, caffeine |
| Piknogenoly | LejkociagenolProciamidyOligomers | Jendotelon |
| Saponins | EstinRuskozidy | Anavenol, aestin, aescusan, reparil |
| Ergot derivatives | DihydroergotamineDigidrojergokristinDigidrojergokriptin | Vazobral |
| Synthetic substances | TribenozidGeptaminalCalcium dobezilat | GlivenolGinkor FortDoksium |

The vast majority of phlebologists note high efficiency of modern drugs used for monotherapy CVI, affecting different parts of the pathogenesis of the disease, among which the most highlight mikronizirovannuu flavanoidnuju-Detralex faction. From other diosmin containing preparations (vazoket, flebodia), it is distinguished by its high efficiency (bioavailability), security, lack of side effects.

Along with medications for flebotropnymi VBVNK use medications other pharmaceutical groups:

-non-steroidal anti-inflammatory drugs (indomethacin, diclofenac, ibuprofen, etc.);

-antibiotics;

-preparations for the jenzioterapii (vobjenzim, flojenzim);

-Vasoactive means and antiplatelet agents (aspirin trental derivatives, dipiridamol, Nicotinic Acid, prostaglandins e 1, etc.).

In the complex treatment of VBVNK it is possible to use topicheskih medicines (gels, ointments). On the basis of the active ingredient, they can be divided into several groups: on the content of heparin (Trombless, Geparinova ointment, Jessavengel, Lioton-1000, etc.), NSAID (diclofenac gel, fastum-gel oruvel gel, etc.), corticosteroids (flucinar, ftorokort Celestoderm b, etc.) or flebotonikov (venoruton ginkor gel, gel, cyclo-3 ointment, etc.).

Tools for local use needs to be combined with elastic compression and farmakoterapiej.

Prevention of varicose veins of lower extremities

The issue of prevention of varicose veins of the lower limbs so far remains unresolved.

There are currently no flawless events, warning the appearance of varicose veins of the lower limbs.

On the basis of the data examined etiopathogenesis varicosity, preventive measures should be aimed at preventing the jelastoliticheskogo process in the venous wall, reducing the hydrostatic pressure in the blood vessels of lower extremities and improvement of the venous outflow.

All preventive measures to prevent the progression of varicose veins of the lower limbs are reduced to its early detection and timely treatment.

This requires all patients with varicosity veins of the lower limbs, regardless of the stage of the disease and the degree of venous insufficiency to take registered with inspection at least once every six months.

Patients with varicosity in the early stages of the disease (reticular varicose veins, teleangioektasia, segmental varicose veins without reflux on venous channel) shows the compression sclerotherapy and flebotropnymi therapy drugs (Diosmin).

Patients with varicosity subcutaneous trunks, insufficiency of veins valve apparatus and vertical and horizontal reflux resected.

CONCLUSION

Each of us must be clear that the lower limbs varicose disease serious disease, affecting not only the quality of life of the people, but are often accompanied by life-threatening complications.

Currently there are all necessary conditions for the timely identification of varicose veins of the lower limbs, allowing effective treatment depending on the stage and forms of disease and severity of Chronic Venous failure.

In modern conditions the development of venous ulcers, varikotromboflebita and other complications of VBVNK should be regarded as a consequence of the unsatisfactory level of preventive and curative care and lack medical qualifications.

Questions for self-study

1.Anatomy of venous system of the lower limbs.

2. The Etiology of the lower limbs varicosity.

3. Pathogenesis of varicose veins of the lower limbs.

4. classification of varicose veins of the lower limbs.

5. varicosity Clinic.

6. Methods of diagnosing varicose veins.

7. Differential diagnosis of varicosity.

8. conservative treatment of patients with varicosity.

9. Surgical treatment of varicose veins.

10. Prevention of varicose veins.

TEST TASKS

Select one or more correct answers.

1.list the superficial veins of the lower

limbs

1) large subcutaneous Vienna

2) superficial femoral vein

3) tough leg tibial veins

4) small subcutaneous Vienna

5) kommunikantnye Vienna

2.What are the main causes of varicose

disease

1) depletion

2) obesity

3) heredity

4) hormonal changes

5) sedentary lifestyle

6) harmful habits (smoking, alcohol)

3.the pressure in the veins in a healthy person is

1) 10-60 mm water column.

2) 70-120 mm water column.

3) 120-200 mm water column.

4) 200-300 mm water column.

5) 300-500 mm water column.

4. how many clinical classes according to the classification of the CEAR varicosity

1)-3

2)-5

3)-6

4)-2

5)-7

5. how many degrees of Chronic Venous lagging CEAR classification accuracy

1)-2

2)-3

3)-4

4)-5

5)-6

6. most informative methods of diagnosing varicose veins

1) functional tests

2) capillaroscopy

3) duplex angioscanning

4) rheovasography

5) to venography

6) voltammetry

7. indication for compression sclerotherapy

is

1) Varicosis class 1 CEAR

2) Varicosis class 6 CEAR

3) Varicosis class 2 CEAR

4) Varicosis class 3 CEAR

5) when any clinical picture

8. name the operation, aimed at removing vertical reflux

1) operation Kokketa

2) operation Narata

3) Remaining operation-Trendelenburg

4) operation Madelunga

5) operation Linton

9. name the operation, aimed at removing the horizontal of reflux

1) Remaining-Trendelenburg

2) Bebkokka

3) Sokolov-Toprovera

4) Kokketa

5) Linton

10. the most effective flebotropnymi are significantly bet-Tami are

1) flavanoida

2) derivative routine

3) saponins

4) ergot derivatives

5) synthetic substances

STANDARDS of the RESPONSES to the test tasks

|  |  |  |  |
| --- | --- | --- | --- |
| NO. | Response | NO. | Response |
| 1 | 1.4 | 6 | 3.5 |
| 2 | 2, 3, 4 | 7 | 1.2 |
| 3 | 2 | 8 | 3 |
| 4 | 3 | 9 | 4.5 |
| 5 | 3 | 10 | 1 |

Situational tasks

Challenge No. 1

     You had to come to the aid of a woman 58 years, which arose from a bleeding ruptured enlarged varicose venous site on left leg.

first aid. treatment plan.

Task No. 2

A patient 46 years for a number of years suffers varicosity veins of the lower limbs. 3 days ago there was soreness and infiltration of tissues in the course of extended veins on the medial surface of the tibia. Began to have trouble walking. The temperature climbed to 38° c. When viewed in the course of the vein is determined by skin hyperemia. Vienna sealed, painful, palpable in the form of a cord. Swelling on the foot and Shin No.

WHAT IS THE DIAGNOSIS TREATMENT TACTICS.

Challenge No. 3

Ill 25 years requested complaint "spider veins and varicose veins on the right Shin subcutaneous lower limb.

Inspection revealed segmental enlargement of subcutaneous veins in the system great saphenous vein at lower leg and reticular varicose veins in the popliteal area and the outer surface of the thigh of the right lower limb.

WHAT SHOULD CONDUCT A SURVEY OF THE PATIENT? TREATMENT PLAN.

Task No. 4.

Sick 56 years suffers lower limbs varicosity 20 years. The disease is associated with pregnancy and hard physical activity. When inspecting found expressed varicose veins subcutaneous on both limbs. On both Shins are swelling and lots of hyperpigmentation of the skin, scratching on the skin of the legs.

In a survey of the patient revealed a large valve ostialnyh insolvency subcutaneous veins, and the failure of the valves of the perforant veins on the legs.

WHAT STAGE OF CVI AT THE PATIENT? VOLUME OF SURGICAL TREATMENT.

Task No. 5.

Patient 36 years in varicosity suffer 15 years. The disease is associated with sports and physical activity.

When inspecting found expressed varicose veins under both legs. The examination found that the deep veins are passable, expressed ostialnogo valve insufficiency large subcutaneous veins, valves of perforans veins untenable. From the proposed surgical treatment the patient temporarily refrains.

YOUR RECOMMENDATIONS.

Task No. 6.

Sick 48 years. Suffers varicosity veins of lower limb 25 years. 3 months ago on the right Shin appeared trophic ulcer, which does not lend itself to conservative treatment. Inspection revealed significant varicose veins subcutaneous on both legs. On the right Shin in the bottom third of the medial surface of the trophic ulcer size 6 x 3 cm with purulent otdelemam. The edges of the ulcer infiltrated podryty. When ultrasound examination revealed that the deep veins are passable, the valves to their wealthy. Ostialnye valves large subcutaneous veins insolvent expressed multiple valve insufficiency of perforans veins on the legs.

WHAT DIAGNOSIS THE PATIENT. THE TACTICS OF TREATMENT.

Task No. 7.

Ill 25 years requested with complaints about the presence of varicose veins retikuljarnogo on both legs. It turned out that the patient during 5 years without interruption took hormonal contraceptives. Activities most of the day is legs.

DIAGNOSIS. TACTICS. TREAT.

Task No. 8.

Patient 27 years. Pregnancy 28 weeks. Complains of progressive availability of varicose superficial veins left lower limb, the appearance of edema of the legs in the afternoon. Before pregnancy varicose veins-subcutaneous noticed. On clinical examination revealed the presence of varicose superficial veins in the system of great saphenous vein and its tributaries testing. Deep veins valves passable their wealthy. Ostialnogo valve failure detected great saphenous vein of the left leg.

DIAGNOSIS TREATMENT TACTICS.

Task No. 9.

Girl 8 years with complaints about the presence of the varikozno expanded veins in the left lower limb, swelling of the limbs, growing during physical exercise (sick since birth).

Inspection revealed the expansion of subcutaneous veins on the outside of the left hip, thigh and foot area. Limb circumference on the thigh and lower leg more than kontrlateralnoj limbs 5-6 cm. Length of left lower limb is greater than the length of the right limb at 2.5 cm. By palpation varicose veins is marked hyperthermia skin over the veins.

WHAT RESEARCH METHODS NECESSARY FOR ACCURATE DIAGNOSIS. The DIAGNOSIS.

Task No. 10.

Sought the assistance of the sick angiohirurgu 54 years old complaining of the presence of varicose superficial veins, permanent swelling on the right lower limb, hyperpigmentation of the skin in the lower third of the right tibia. Repeated occurrence of trophic ulcers on the lower leg. 10 years ago suffered deep Phlebothrombosis of the right lower limb.

Inspection revealed an increase in the volume of the right lower limb, soft swelling of lower leg and foot, hyperpigmentation on the medial surface of the tibia in the lower third, Cicatricial changes skin tibia after venous ulcers.

PATIENT SURVEY PLAN. PRELIMINARY DIAGNOSIS. FURTHER TACTICS.

Standards to answer situational tasks

Objective No. 1

First of all, you need to apply a pressure bandage on the bleeding area and give a limb exalted position. If the bleeding stop the armband has failed, it is necessary to reprogram and wrap leads and lead ends of veins.

In the subsequent ill need to operate in a hospital after a full clinical examination.

Task No. 2.

Ill have a varikotromboflebit. Shown ultrasound venous bed of the limb. If you find flotirujushhij thrombus-shows the emergency operation-krossjektomija. If thrombus is fixed that the anticoagulant and anti-inflammatory therapy.

Task No. 3.

First of all it is necessary to conduct functional tests Remaining-Trendelenburg, Delbe-Pertesa, Pratt-2. Then an ultrasound of the venous system. While maintaining the patency of the deep veins and sostjatelnosti veins valve apparatus demonstrates treatment-compression sclerotherapy.

Task No. 4.

Patient have identified 3 art. Chronic Venous Insufficiency on the classification of CEAR.

Shows the remaining operation-Trendelenburg, Bebkokka, Narata and bandaging insolvent perforant veins on Kokettu.

Task No. 5.

Patient is advised to wear elastic bandages or compression hosiery (stockings, pantyhose), limit physical exertion. In addition, receiving flebotropnyh drugs (Detralex, Flebodija) rates on 1 t. x 2 times a day for 2 months, receiving antiplatelet aspikor, kardiomagnil, tromboass.

Task No. 6.

Ill have primary varicose superficial veins of the lower limbs. Chronic Venous Insufficiency 4 art. on the classification of CEAR.

Tactics is the achievement of sanation epithelialization of trophic ulcers on the right Shin. In the subsequent operational treatment aimed at eliminating of the vertical and horizontal venous reset or remove subcutaneous varicose veins.

Task No. 7.

Ill reticular varicose veins with 1 class according to the classification of the EAPC. Chronic Venous Insufficiency 0 art.

Sick urged rejection of hormonal drugs. With a cosmetic purpose shows the compression sclerotherapy.

Task No. 8.

A patient of varicose superficial veins of the left lower extremity C2, developed against the background of the pregnancy. Chronic Venous Insufficiency 2 art. (CEAR).

Recommended. Constant wearing compression hosiery (stockings). Reception detraleksa in the third tremestre of 1 t x 2 times. Observation angiosurgeon (phlebologist).

Task No. 9.

With the objective of the survey is needed to hold the ultrasound vascular bed of the limbs, Arteriography, skin Thermometry. The presumable diagnosis in sick-congenital vascular angiodisplazija the left lower limb.

Task No. 10.

You must hold a full clinical examination of the patient, including duplex angioscanning venous system of the lower limbs, if necessary flebografiju provisional diagnosis-Postthrombophlebitic disease (PTFB) lower extremity. Secondary varicose veins of the lower extremity right lower. Chronic Venous Insufficiency III art.. at revealing form rekanalizirovannoj posttromboflebiticheskoj disease and multiple insolvent perforant veins shows surgical treatment occlusal PTFB form At. conservative treatment.

Recommended Literature

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List of abbreviations:

VBVNK-varicosity veins of the lower limbs.

CVI-chronic venous insufficiency.

CEAR CEAR-classification (clinical, etiological,

anatomical, pathophysiological).