THE REHABILITATION PROGRAMME FOR THE PATIENTS WITH CHRONIC VENOUS INSUFFICIENCY OF LOWER LIMBS

The obtained experience proved that therapy of chronic venous insufficiency of low limbs is more successful due to complex rehabilitation programmes, such as equipped physiotherapy, balneotherapy, hirudotherapy, acupuncture, physical therapy), fleboprotector, topical drugs in the form of ointments and gels based on venous active drugs in combination with wearing of compression knitwear, acupuncture, laser therapy, therapeutic gymnastics and massage, that provides faster symptoms’ relief and prevention of early complications.

Key words: chronic venous insufficiency of low limbs, hirudotherapy, venotonics, magnetic therapy, magnetic-laser therapy, sodium chloride baths acupuncture, physical therapy

Chronic venous insufficiency of the lower limbs (HVNNK) in connection with its prevalence is one of the urgent problems of modern medicine. According to various authors, 20-25% of women and 10-15% of men aged 40 to 70 years suffer from HVNNK [1].

In the department of rehabilitation treatment BI "Central City Hospital" in 2009 with the assistance of various experts in the field of regenerative treatment the program "Caring for the heart and blood vessels" was developed and implemented into the system of voluntary medical insurance. Under the program for 2009-2010 we treated a group of 25 people with chronic venous insufficiency of the lower limbs grade 1-2 (21 women and 3 men aged 26 to 72 years, the average age of women - 48.0, men - 54.8 years). The study included a control group of 30 patients (27 women and 3 men aged 25 to 72 years, the average age of women - 47.1, men - 53.3 years), with the same degree of venous insufficiency and treated with magnetic therapy, gymnastics and hirudotherapy outside of this program.

The purpose of the study was to compare the effectiveness of different treatment approaches, and identify the most successful complexes of rehabilitation.

The patients of both groups complained of a feeling of heaviness and fatigue in the legs (100% in both groups), transient or persistent enough swelling of feet and legs (100% in both groups), pain in legs and feet (21 people in the first group - 84% 19 people in the second - 63%), the transformation of varicose saphenous veins (100% in both groups), the presence of teleangioectasia (12 people in the first group - 48%, 18 people in the second - 60%), twitching leg muscles (10 People in group 1 - 40%, 13 people in the 2nd - 43%). The degrees of venous insufficiency were confirmed by ultrasound studies of vessels.

Medical complex in the framework of LCA included magnetic therapy, lasering therapy, salt baths, physiotherapy, reflexology and hirudotherapy and the duration was 28 days.

In the first two weeks, patients received magnetic therapy and hirudotherapy. Magnetic therapy was carried out in the form of exposure to pulsed magnetic fields running at low frequency from the device "Alimp-1." The rationale for the use of magnetic therapy is due to its anti-edematous, hypocoagulating, anti-inflammatory, antispasmodic and trophic effects. The device "Alimp-1" is the source of running pulsed magnetic field. The solenoid device into which the limb is placed, is collected from 5 inducers and a "pipe" with an inner diameter of 190 mm. when an electrical signal is simulated by moving the source of pulsed magnetic field from one inductor to the next, resulting in an "wave" of running magnetic field, which acts on a limb [2]. The intensity of the magnetic field - from 30 to 100%, the pulse repetition rate - from 40 to 100 Hz, the procedure - from 20 to 30 min, 10 procedures carried out daily, or two consecutive days with a break on the 3rd.

The course of hirudotherapy consisted of 6-7 procedures carried out in 1-2-3 day. The number of leeches for 1 procedure depended on the extent of the lesion and the stage of illness (1st or 2nd stage), the entire course of treatment used 25-30 leeches. The zone for the leeches: sacrococcygeal area, the area above the vagina, the projection area of the liver, spleen and locally - the points along the affected vein (staggered). The exposure of the leeches is maximum. The therapeutic effect of hirudotherapy consists of
reflex, mechanical and biological factors. The mechanism of action of reflex factor is associated with those in the acupuncture and mechanical - with the unloading of the regional blood flow, since hirudotherapy improves blood rheology (fluidity) and microcirculation. Due to the presence in the saliva of leeches a whole range of biologically active substances anticoagulant, thrombolytic, antihypoxia, trophic effects are observed [6].

In the following 14 days this group of patients was treated with laser therapy, chloride sodium baths and reflexology. Laser irradiation was performed from the device "Mustang 2000" on skin (emitter LO2, pulsed radiation with a wavelength of 0.89 microns, the pulse 6 W, frequency of 150 Hz) in the groin area (1 min), popliteal area (1 min), the anterior the inner surface of tibia (2 zones for 2 min) and the femur (2 zones for 2 min), all-in-all - 10 procedures. Laser therapy improves microcirculation, reduces swelling of tissues, has anti-inflammatory effect, stimulates local immune defense mechanisms. [4]

Sodium chloride bath contribute to "taking away" the water from the surface layers of the skin and thus cause tissue dehydration and exit of the fluid from interstitial into the capillary bed (anti-edema effect), increase the tone of peripheral veins, contributes to the inflow of venous blood from the periphery to the heart. [2] To prepare the sodium chloride baths sea salt is used, water salinity with the addition of 1 kg of salt was 30-40 g / l, the water temperature 35-37 °C , duration of procedure - 12-15 min. We carry out the procedure for 2 consecutive days with a break for the third day, all-in-all 10 procedures.

The task of acupuncture at HVNNK was to restore a normal circulation of energy within meridian system, as well as in individual meridians. The selection of acupuncture points was conducted individually according to general clinical acupuncture-term diagnostics and performance test Akabane. [3] on the results of the diagnostics frequent changes were observed in the meridians of pancreas spleen (RP), the kidneys (R), stomach (E), the bladder (V), the pericardium (MS). While power vacuum the toning was used, while the fullness - the dispersion was used. During 2 weeks of treatment the patients received 7 procedures each performed daily or every other day.

During the course of treatment, patients were engaged in physical therapy, using special complexes for physical exercise for patients with chronic venous insufficiency. At the same classes in gymnastics hall were held in a day, and on other days the exercises were carried out independently at home. Special exercises at HVNNK: exercises fine motor skills in the feet in a sitting position, exercise for lower limbs in the supine position with the horizontal position or raised legs with large amplitude motions in the hip and ankle joints, breathing exercises with an emphasis on increasing the range of motion of the diaphragm, exercises on hip and thigh muscles (using rubber bands), walking [5]. Physiotherapy lasted 30 minutes. During the day provided for walking stockings (bandages) and the performance of individual exercise in the supine position with a raised foot end. By the complex of physical therapy and recommendations on the treatment of movement, relaxation and distance improved venous and lymphatic drainage, improvement or normalization of arterial inflow, increased venous tone and efficiency "muscle pumps", the reduction or prevention of degenerative changes in the tissues of the affected limb are achieved.

The patients of the second group had a set of 15 magnetic therapy procedures (21 people) with physiotherapy and hirudotherapy with physiotherapy (9 persons). This group was formed from patients with certain contraindications for comprehensive treatment, as well as from individuals who do not have, for whatever reasons, enough time for a full course of treatment. Magnetic therapy, physiotherapy and hirudotherapy follow the same procedure as the first group of patients.

All patients were encouraged to wear compression stockings or bandages and all of them got recommendations on diet for weight control and pro-prevention of constipation.

The patients in both groups received tablets and vein topical pharmaceuticals in the form of ointments and gels based on veino-active drugs.

The evaluation of the treatment was carried out at the end of the treatment. The patients of both groups showed improvement of general well-being, increase in efficiency. In analyzing the effectiveness of treatment it was observed that the best results are obtained in the first group. In addition, the patients of the first group were more optimistic about a positive outcome of the treatment, as they were inspired by the simultaneous participation of different specialists (physiotherapist, hirudotherapytherapist, a doctor of physical therapy) in the treatment of their disease and the diversity of non-drug treatments. A feeling of
heaviness and fatigue in the legs disappeared in 20 (80%) and significantly decreased in 5 patients (20%) in group 1, in group 2, respectively, in 14 (47%) and 16 people (53%). Swelling of the feet and legs disappeared in 14 patients (56%) and decreased significantly in 11 (44%) in the first group and the second group, respectively, in 11 (37%) and 19 (63%). Pain in the legs and feet in the first group disappeared in 100% (21 people) complaining about this symptom and 85% (16 people) in the second group. Varicose veins transformation subcutaneous decreased in 16 persons in the first group (64%) and in 9 (30%) – in the second, teleangiectasia decreased in 5 patients out of 11 in the first group (45%) and 5 of 18 (17%) – in the second. Spasmodic contraction of the muscles of shins, disappeared in 100% (10 people) complaining about this symptom in the first group and 77% (10 people) in the second group.

Thus, the combined effect of non-drug methods, combined with the methods and veintonics using medicinal ointments and gels is an interactive and potentiating way to restore or significantly improve the function of the venous and lymphatic systems of the lower limbs and secondary prophylaxis.

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