highly effective method of treating hydrops fetalis with fetal anemia. Thanks to the use of the method of intrauterine blood transfusion, it was possible to treat severe forms of anemia in the fetus, as well as to prolong the pregnancy until the term of fetal viability. However, the method is not always effective, especially in severe cases, and does not completely eliminate the manifestations of hydrops fetalis. Possible complications from both the fetus (bradycardia, umbilical arterial vasospasm, umbilical vein thrombosis, fetomaternal hemorrhages, antenatal fetal death) and the mother (rupture of membranes, placental abruption, preterm delivery) limit the use of this method of intrauterine fetal therapy. However, the technical complexity of this method hinders its widespread application, which requires the development of more precise solutions to solve this problem, including the introduction of technically safe fetoscopic methods of access to the umbilical cord to reduce complications.

References:

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ND:YAG 1064 NM LASER REGIMENS IN CHRONIC VENOUS DISEASE TREATMENT DEPENDING ON THE VEINS DIAMETER

Introduction. The global prevalence of chronic venous disease (CVD) reaches 83.6%: 63.9% - patients C1-C6 clinical classes according to CEAP, and 19.7% - persons C0s clinical class. CVD is a widespread vascular pathology in Ukraine, covering 9.3 to 20.0% of the general population and 25% of the working population of Ukraine [1, 2].

The treatment of CVD is not intertwined with the reduction of reflux on the main vessels. Almost always the operation is supplemented by the elimination of additional
Choosing the optimal method for removing additional tributaries is relevant today. Miniflebectomy and sclerotherapy are mainly used. Sclerotherapy has a number of advantages in comparison with surgical methods: painlessness, quick results, excellent cosmetic effect, no need for bed rest, quick rehabilitation. There are cases when sclerotherapy is contraindicated such as small diameter blood vessels, allergy to certain sclerosing agents. In addition, it is often accompanied by hyperpigmentation, which is undesirable from an aesthetic point of view. Miniphlebectomy eliminates the possibility of recurrence, but is often complicated by scarring at the puncture site and paraesthesia. The development of new medical technologies has given impulse to the development and introduction into clinical practice of minimally invasive methods of treatment of CVD of the lower extremities. Transcutaneous laser treatment has become a new direction of CVD treatment. The laser beam acts only on pathologically dilated small vessels and capillaries, without injuring the surrounding tissues. You can change the energy of the laser on the vessels depending on their location and diameter, selecting the optimal dose [2, 3].

According to researchers, the 1064-nm neodymium yttrium-aluminum-garnet (Nd:YAG) laser gives better clinical results than other lasers (the 532-nm potassium titanyl phosphate (KTP) laser, the 585-600-nm pulsed dye laser, various 800-983-nm diode lasers, the 755-nm alexandrite laser) [3, 4]. The selection of parameters of influence is relevant today.

**The aim of the study** – to analyze the Nd:YAG 1064 nm laser regimens in CVD treatment of 3-5 mm varicose veins.

**Materials and methods.** The study randomly included 30 patients. The study objects are vessels with a diameter of 3 to 5 mm with a depth of 4-5 mm. Based on the diameter of the vessels the patients were divided into 2 groups: the 1st group (n = 15) with veins diameter d = 3-3.9 mm; the 2nd group (n = 15) with d = 4-5 mm.

Depth, diameter and morphological characteristics of vessels were determined using an ultrasonic device SonoScape S6 with a linear multifrequency probe L 741 in B-mode. Evaluation of the hemodynamic parameters was performed using the modes of "energy" and "color" Doppler. Contact surface cooling was performed with minimal local skin blowing cold air for 5-10 seconds to and prevent epidermis and surrounding perivascular tissue damage and for pain relief. Apparatus FOTONA Dynamis (Slovenia) Nd:YAG laser at 1064 nm was used with the parameters of the 4 mm spot size, fluence of 180-200 J/cm² and pulse durations of 15-20 ms. Selective photothermolysis was achieved by referring 2 consecutive laser pulses to one point. Procedure was performed along the entire length of the vessel with an interval of 3-4 mm.

**Results.** To rich the selective destruction of the vessel with minimal perivascular damage, careful selection of target structures, their size, vessel color and depth of placement was provided. Ultrasound angioscanning was used at the baseline and after 3 months to control of efficiency. Vascular thrombosis, lack of compression by the probe during the compression test were estimated immediately after procedure, and the presence of veins recurrence was determined after 3 months.

It was achieved the satisfactory results in both groups immediately after the procedure: there was vascular thrombosis, and compression test was negative in 100% patients. Ultrasound angioscanning have demonstrated an absence of vessel in 13 patients (86.7%) of the first group after 3 months; 2 patients (13.3%) had recurrence in the 1st group. The same time, in the 2nd group only 10 patients (66.7%) had no vessels and 5 patients (33.3%) had recurrence.
Conclusions. A small amount of recurrence indicates that the use of a Nd:YAG 1064 nm laser with the parameters of the spot size of 4 mm, with fluence 180-200 J/cm² and pulse durations 15-20 ms is effective for selective photothermolysis of varicose veins of less than 4 mm in diameter with a depth of 4 - 5 mm (p < 0.05).

References:

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ЗДОРОВЫЙ ОБРАЗ ЖИЗНИ В СВЕТЕ ТИПОЛОГИЧЕСКИХ АСПЕКТОВ

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Вопросы о здоровом образе жизни поднимаются специалистами из различных стран мира, принадлежащими к разным направлениям Науки. В Малайзии созданы специальные опросники, позволяющие распознать и понизить выраженность депрессии у подростков (этно-возрастной аспект) [1]. В Иране было проведено исследование, 66% из участников которого были женщины в возрасте 40±4,6 лет, проживающие в сельской местности (этно-гендерно-возрастной типологический аспект плюс принятие во внимание, жителем города или сельской местности являются испытуемые) по формированию и даже стимулированию здорового образа жизни (health promotion life style) [2]. На это направлены усилия учёных из различных стран мира и разных направлений Науки о Человеке. Этнический аспект плюс учёт конституции на основе проведения антропометрических измерений были теми типологическими аспектами, которые оказались принятыми во внимание иранскими исследователями, работа которых продемонстрировала, что наивысший уровень потребления в пищу комплексных углеводов имел обратно пропорциональную зависимость с возникновением заболевания коронарной