МІНІСТЕРСТВО ОХОРОНИ ЗДОРОВ'Я УКРАЇНИ
БУКОВИНСЬКИЙ ДЕРЖАВНИЙ МЕДИЧНИЙ УНІВЕРСИТЕТ

М А Т Е Р І А Л И

106-ї підсумкової науково-практичної конференції
з міжнародною участю
професорсько-викладацького колективу
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Матеріали підсумкової 106-ї науково-практичної конференції з міжнародною участю професорсько-викладацького колективу Буковинського державного медичного університету (м. Чернівці, 03, 05, 10 лютого 2025 р.) – Чернівці: Медуніверситет, 2025. – 450 с. іл.

У збірнику представлені матеріали 106-ї науково-практичної конференції з міжнародною участю професорсько-викладацького колективу Буковинського державного медичного університету (м. Чернівці, 03, 05, 10 лютого 2025 р.) зі стилістикою та орфографією у авторській редакції. Публікації присвячені актуальним проблемам фундаментальної, теоретичної та клінічної медицини.

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operative treatment were analyzed and statistically processed. The age of the patients ranged from 55 to 79 years. All patients were examined laboratory (using clinical and biochemical tests of blood and urine) and sonographically (ultrasound of kidneys, bladder, prostate, measurement of residual urine).

Results. In both groups of patients, a significant decrease in the preoperative rate of glomerular filtration by endogenous creatinine was observed. This indicates compromised kidney function and reduced ability to maintain electrolyte balance. A clear interdependence between the development of the TUR syndrome and the time of the operation was noted. Continuation of surgical intervention after a 90-minute operation carries a significant probability of the development of TUR syndrome. The serum sodium level during its development was 98±5.7 mmol/l. Correction of this condition was carried out by the introduction of hypertonic NaCl solution, hyperosmolar solutions (Reosorbilact, Sorbilact), diuretics and glucocorticoids (hydrocortisone).

Conclusions. 1. The usage of isotonic solutions as an irrigation fluid is essential. 2. It is necessary to try to reduce the time of surgical intervention (due to improvement of surgical technique, use of more advanced equipment). 3. In case of significant impairment of the functional state of the kidneys, it is advisable to carry out preoperative preparation using drugs that improve renal blood circulation and strengthen glomerular filtration in combination with nephroprotectors. 4. During the surgical intervention, metaphylaxis of extravasation of the irrigation fluid by means of perfect hemostasis and maintenance of elevated blood pressure indicators.

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TRANSCUTANEOUS OXIMETRY AS A DIAGNOSTIC METHOD OF THE EFFECTIVENESS OF LASER VAPORIZATION IN PATIENTS WITH ULCERS AND WOUNDS OF THE DIABETIC FOOT

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Introduction. Diabetes mellitus (DM) is a serious international health problem affecting more than 387 million people. A person with diabetes has a 25% lifetime risk of developing a diabetic foot ulcer (DFU). DFU is a chronic wound with impaired healing that is often difficult to manage and increases the risk of future infections. Every sixth patient with DFU will require limb amputation, which in 77% of cases leads to mortality within the next 5 years.

The aim of the study. If we take into account the seriousness of this pathology and its progression, the search for new methods of treatment and management of ulcers and wounds in the ischemic form of diabetic foot syndrome (DFS) is still relevant. Therefore, the purpose of our study is to evaluate the effectiveness of laser vaporization as our proposed adjuvant method of surgical treatment of diabetic foot wounds (DFW) or DFU.

Material and methods. The study included 80 patients with diabetic foot ulcers or wounds on the background of ischemia of the lower extremities. During the study, patients were offered a standard algorithm of treatment procedures which included the main and auxiliary methods of treatment with the addition of laser vaporization as an adjuvant method of surgical treatment of wounds. While evaluating the effectiveness of the proposed method, the indicators of gender and age, the severity of ischemia in the lower extremities, the size and localization of defects in patients with DFS were taken into account. The method of transcutaneous oximetry was used to evaluate the effectiveness of the proposed treatment method. According to international vascular recommendations, TcPO2 values has a practical importance. Clinically, TcPO2 helps to evaluate the severity of ischemia, need for revascularization, potential for wound healing or response to revascularization and can determine the appropriate level of amputation and as the result the healing trend of a post-amputation wound.

Results. According to the design of the study, patients who are included in the inclusion criteria underwent a Doppler scan of the vessels of the lower extremities, measured indicators of the Ankle brachial index (ABI) and transcutaneous oximetry in order to establish the severity of ischemia. Last one was also performed along the perimeter of the ulcer or wound defect.

Measurements were taken at the beginning of the course of treatment and after the course, which included laser vaporization as an additional method of surgical treatment of DFU or DFW. The duration of application of this model of wound management in DFS was 14 days. According to the results of the study, in 80% of cases, the proposed model demonstrates rapid rates of healing of the wound defect, which was especially confirmed by the increase in TcPO2 indicators relative to their starting values. The average value of oxygen tension around the defect before vaporization was 31.2 ± 2 mm.Hg, then after the course of treatment, which included laser vaporization in certain modes determined by the researchers, this average value increased and was 38.5 ± 4 mm.Hg, which indicates an improvement in the perfusion properties of tissues in the DFU\DFS area and as a result, indicates a high probability of spontaneous closure of the defect. But also it should be mentioned tha the effectiveness of the method was directly correlated with the severity of ischemia in the lower limbs, which was confirmed instrumentally.

Conclusions. Laser vaporization, as a method of adjuvant surgical treatment of necrotized, poorly vascularized and ischemic tissues is a portable, highly effective and cost-effective method that needs to be included in the treatment protocols for the management of wounds or ulcers of the ischemic form of DFS.

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CRYOPRESERVATION OF GERMINATIVE CELLS IN THE TREATMENT OF ONCOLOGIC PATHOLOGY IN PATIENTS OF REPRODUCTIVE AGE

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Introduction. In the structure of oncological pathology, there is a tendency for the number of younger patients to increase. When this diagnosis is established, the treatment of the patient requires the use of radiation, chemo-, immuno-, and hormone therapy.

The aim the study. These methods lead to damage to the germinal epithelium, often irreversible. A significant number are patients of reproductive age who do not have children. With a favorable prognosis for life in this group of patients, restoration of reproductive function is relevant.

Materials and methods. According to the international classification of the WHO, infertility in cancer patients receiving specific therapy is not distinguished and is considered as iatrogenic or acquired testicular damage. Patients of reproductive age with a verified oncological disease who want to have children are recommended to undergo cryopreservation of sperm. In the course of the disease with tumor processes, there is a cessation of pulsed secretion of LH, a decrease in the concentration of total and free testosterone, and the prevalence of catabolic processes. It is generally recognized that low-dose radiation therapy has less effect on spermatogenesis than chemotherapy. If the germ cell epithelium stem cells are intact, spermatozoa appear in the ejaculate in 60–70 days.

Results. It has been established that fractionation of the radiation dose increases damage to the germ cell epithelium stem cells. During radiation therapy, shielding the testicles reduces their damage, but the scattered radiation dose (about 2% of the total) quite often exceeds the threshold of spermatogenesis suppression. Chemotherapy damages spermatogonia DNA. For example, andriamycin, vincristine, and methotrexate cause irreversible azoospermia in 16% of adolescent patients. When cisplatin is prescribed, azoospermia occurs in 37% of adolescent patients. A course of treatment with cyclophosphamide or procarbazine leads to infertility in 68%.

Conclusions. The risk of irreversible azoospermia increases with a combination of radiation and chemotherapy. In recent years, sperm cryopreservation has become an increasingly common procedure. In specialized reproductive centers, sperm for cryopreservation, in addition to the usual ways, can be obtained, if necessary, using microsurgical technologies (TESA, PESA, MESA). A conversation with a patient about sperm cryopreservation occurs against the background of a severe psychological state. Therefore, it is recommended that the patients with uncertain survival prospects (IV clinical group) are not included in this program. At the same time, it is recognized that sperm cryopreservation can provide some psychological support to the patient. In many countries, this