## МІНІСТЕРСТВО ОХОРОНИ ЗДОРОВ'Я УКРАЇНИ БУКОВИНСЬКИЙ ДЕРЖАВНИЙ МЕДИЧНИЙ УНІВЕРСИТЕТ»



## МАТЕРІАЛИ

105-ї підсумкової науково-практичної конференції з міжнародною участю професорсько-викладацького персоналу БУКОВИНСЬКОГО ДЕРЖАВНОГО МЕДИЧНОГО УНІВЕРСИТЕТУ присвяченої 80-річчю БДМУ 05, 07, 12 лютого 2024 року

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Матеріали підсумкової 105-ї науково-практичної конференції з міжнародною участю професорсько-викладацького персоналу Буковинського державного медичного університету, присвяченої 80-річчю БДМУ (м. Чернівці, 05, 07, 12 лютого 2024 р.) – Чернівці: Медуніверситет, 2024. – 477 с. іл.

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У збірнику представлені матеріали 105-ї підсумкової науково-практичної конференції з міжнародною участю професорсько-викладацького персоналу Буковинського державного медичного університету, присвяченої 80-річчю БДМУ (м. Чернівці, 05, 07, 12 лютого 2024 р.) із стилістикою та орфографією у авторській редакції. Публікації присвячені актуальним проблемам фундаментальної, теоретичної та клінічної медицини.

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gastroesophageal reflux disease, and positive P. aeruginosa and other gram-negative rods isolated from sinus cultures. Thus, patients with chronic rhinosinusitis and diabetes may require special postoperative care, such as cautious use of oral steroids, and physicians treating CRS in patients with diabetes may consider prescribing antibiotics with improved pseudomonal coverage.

**Conclusions**. In patients with diabetes mellitus, purulent maxillary sinusitis is characterized by a long, sluggish course, involvement of other paranasal sinuses in the process, an atypical x-ray picture, and the development of complications. In the blood of these patients, in contrast to patients without diabetes, an increase in the relative and absolute number of band and segmented neutrophils and a sharp increase in ESR are observed. Maxillary sinusitis in patients with diabetes mellitus occurs against the background of pronounced changes in the immune status, which affect all parts of the immune system.

#### Sykyrytska T.B.

#### CONTROL OF THE STATE OF THE MACULAR AREA AFTER CATARACT SURGERY

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**Introduction.** The success of surgical interventions in cataract surgery depends on preoperative preparation and postoperative management of the patient.

The aim of the study. To develop an algorithm for preoperative preparation and postoperative rehabilitation of patients operated on for cataract (Phacoemulsification of cataracts (Phaco) with intraocular lens implantation).

**Material and methods**. On the basis of the "Visium" clinic (Chernivtsi), 60 disease histories of patients operated on for age-related cataracts (30 women and 30 men) were analyzed. The age of the patients ranged from 45 to 82 years. 58 patients had concomitant diseases (56 patients – hypertension, 16 patients – diabetes, 6 patients – thyroid disease).

**Results.** All patients were operated on after a full examination (visometry, pneumotonometry, perimetry, biometrics, biomicroscopy, ophthalmoscopy, v-scan, optical coherence tomography), consultation of related specialists (ENT doctor, dentist, endocrinologist, family doctor). Direct preoperative preparation was carried out for 3 days. It included: local antibacterial drops and corticosteroids. **Patients** underwent phacoemulsification with intraocular lens implantation. Modern technologies allow cataract surgery with greater speed and safety, with better visual results and a reduction in the rehabilitation period. Unfortunately, even the most modern technologies of cataract surgery, implantation of the most modern intraocular lenses, cannot guarantee high visual functions after surgery. According to the literature, there are several causes of low vision after cataract surgery: cystic macular edema, agerelated macular degeneration, diabetic macular edema, central retinal vein thrombosis, macular traction syndrome. Pseudophakic cystoid macular edema (CME) (Irvine-Gass syndrome) ranks first among complications in the postoperative period. A decrease in visual functions in this pathology is observed over a long period of time (from several weeks to several years). Prolonged untreated macular edema can lead to another irreversible pathology – age-related macular degeneration. Patients with diabetes are at risk of developing diabetic macular edema. Vitreomacular traction syndrome is manifested by peripheral detachment of the vitreous body. Among our patients, 1 patient (1.6%) was diagnosed with Irvine-Gass syndrome, 2 patients (3.3%) with diabetic macular edema.

**Conclusions.** All of the above confirms the need to develop an algorithm for the management of cataract patients: a preoperative assessment of the condition of the central parts of the retina is obligatory; informing the patient about the possibility of progression of VMT, diabetic macular edema after cataract removal; if necessary, use of preoperative anti-vascular endothelial growth factor (VEGF) therapy; it is desirable to use operating microscopes with an ultraviolet filter; if necessary, postoperative anti-VEGF therapy. Pathology of the macular area is quite common in patients with age-related cataracts. Modern diagnostics, full preoperative preparation, correct

pharmacological support in the postoperative period contribute to increasing the effectiveness of surgical treatment of age-related cataracts.

#### Tarabanchuk V.V.

# CHANGES OF PHOTOLUMINESCENT PARAMETERS OF VENOUS BLOOD AT THE DIFFERENT FORMS OF ACUTE PANCREATITIS

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**Introduction.** Informative diagnostics of different forms an acute pancreatitis and its complications is one of the most difficult problems in emergency abdominal surgery. Diagnostic probability of standard laboratory and instrumental methods is one of the most difficult problems of acute pancreatitis. This makes actual problem search for new, informative diagnostic parameters.

Established that luminescence of human blood plasma was in the wavelength  $\lambda=460$  - 800 nm. Thus, in the fluorescence spectra of healthy people observed the characteristic maximum of intensity at wavelength  $\lambda=474$ -475 nm. In patients maximum indicators of fluorescence capacity in this area displaced to the short-range, starting from the wavelength  $\lambda=471$  nm, and their absolute parameters were much lower.

The aim of the study. Study of genetically determined defense mechanisms aimed at preventing intrapancreatic enzyme activation.

**Material and methods.** A comprehensive examination of 61 patients admitted to the hospital with acute pancreatitis signs was conducted.

**Results.** The study involved 25 healthy donors (the first group) and 61 patients, among them there were 15 patients with acute destructive cholecystitis (the second group), 13 patients with perforating gastroduodenal ulcers (the third group), 33 patients with acute destructive pancreatitis (the fourth group). In order to assess the informativeness of photoluminescent diagnostics, determination a luminescence spectrum of venous blood plasma was carried out. Irradiation a monochromatic laser beam of blood plasma was performed. Laser radiation source was an argon laser LGN-503, which emits at a wavelength of 458 nm with a power of 200 mW. Statistical deviation in intensity measurements on a given apparatus was 2-3%. For decode the luminescence spectrum of human blood plasma as the reference radiation source used a temperature lamp TRSH 2850-3000.

As a result of a comparative analysis in patients of the second, third and fourth groups characteristic differences of the spectral distribution of peak values fluorescence intensity were found. In particular, acute destructive cholecystitis maximum parameters were observed at a wavelength  $\lambda = 470$  nm, perforations of gastroduodenal ulcers - at a wavelength  $\lambda = 468$  nm, and acute destructive pancreatitis - at a wavelength  $\lambda = 466$  nm.

Thus, studies testify that at conditions of acute destructive pancreatitis the specific changes of photoluminescent parameters of venous blood plasma appear. This points to promising carrying out further in-depth research in this direction.

Conclusions. Peak values of fluorescence intensity blood plasma of healthy donors are marked at wavelengths  $\lambda = 474\text{-}475$  nm. The patients with acute surgical diseases of the abdominal cavity maximal values fluorescence intensity of the plasma shift to the short range. The characteristic peak of fluorescence intensity at wavelength  $\lambda = 466$  nm is determined at acute destructive pancreatitis.

#### Андрієць В.В.

### ЕФЕКТИВНІСТЬ ЛАПАРОСКОПІЧНОГО ЛІКУВАННЯ ПАЦІЄНТІВ З ГРИЖАМИ СТРАВОХІДНОГО ОТВОРУ ДІАФРАГМИ

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**Вступ**. Грижа стравохідного отвору діафрагми (ГСОД) – проблема, яка знижує якість життя та може бути причиною важких ускладнень – кровотечі, защемлення, дисфагії,