МІНІСТЕРСТВО ОХОРОНИ ЗДОРОВ'Я УКРАЇНИ
БУКОВИНСЬКИЙ ДЕРЖАВНИЙ МЕДИЧНИЙ УНІВЕРСИТЕТ»

М А Т Е Р І А Л И

105-ї підсумкової науково-практичної конференції
з міжнародною участю
професорсько-викладацького персоналу
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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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has been the subject of research. The clinical utility of a CT imaging study often out weights the risks of limited radiation exposure.

The differential diagnosis of bacterial orbital cellulitis includes other causes of orbital inflammation. Another possible mechanism also was necessary to evaluate. Specifically, mycotic orbital celluitis, neoplasm, thyroid eye disease and idiopathic orbital inflammation as well as autoimmune, congenital, and traumatic disease should be considered in the diagnosis of bacterial orbital cellulitis. So as vision loss may result from insult to the optic nerve or retina through a variety of mechanisms including orbital compartment syndrome, vascular infiltration, mass effect, and optic neuritis several types of investigations were conducted.

Conclusions. Pediatric bacterial orbital cellulitis is an infectious inflammation within the postseptal space that has been associated with significant morbidity and occasional mortality. Distinguishing preseptal from orbital cellulitis is critical to the appropriate management as is the distinction of bacterial orbital cellulitis from other postseptal processes. *Staphylococcus aureus* and *Streptococcus* species are the most common pathogens. Diagnostic tests including imaging studies should be judiciously applied that may reveal ethmoid sinusitis. Patients should be admitted and treated with broad-spectrum antibiotics and when needed surgical intervention be carried out. Monitoring for complications may prevent significant morbidity and mortality.

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IMMUNOLOGICAL ASPECTS OF SINUSITIS IN DIABETES MELLITUS

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Introduction. Inflammatory diseases of the nose and paranasal sinuses are very relevant in otolaryngology. They occur at any age and are observed in 80% of the population. In the United States, sinusitis is the most common chronic disease, surpassing arthritis and arterial hypertension in frequency of detection. According to the US National Center for Disease Statistics, up to 12.5% of North Americans suffer from chronic sinusitis.

In Ukraine, the number of patients with diseases of the nose and paranasal sinuses has currently reached 62%. Rhinosinusitis is especially severe in the setting of diabetes mellitus. In such patients, the ability to work is significantly reduced and the quality of life deteriorates and the treatment period increases. They are characterized by involvement in the inflammatory process of the orbit and cranial cavity, damage to the vessels of the mucous membrane of the paranasal sinuses.

The aim of the study. The nature and extent of immune disorders, their place and role in the pathogenesis of the disease and approaches to their correction have not been formulated in the literature. Most studies are conducted on maxillary sinusitis in patients without endocrine disorders. Therefore, it is very important to study the features of the clinical course of chronic purulent sinusitis and the nature of immune disorders in patients with diabetes mellitus.

Material and methods. Chronic rhinosinusitis is defined as a group of diseases characterized by inflammation of the nasal mucosa and paranasal sinuses for at least 12 weeks. This is a heterogeneous multifactorial disease. Chronic rhinosinusitis is caused by many risk factors, such as age, gender, smoking status, nasal polyps, allergic rhinitis, asthma, aspirin intolerance, infections, biofilms, gastroesophageal reflux, as well as anatomical abnormalities of the upper respiratory tract and histological appearance of the sinus mucosa.

Results. It is known that the percentage of people diagnosed with diabetes has been increasing over the past decades. Elevated blood sugar levels in people with this disease suppress the immune system. Nerve damage and decreased blood flow are also important factors that also increase the body's vulnerability to infections. Research shows that patients with diabetes are at increased risk of lower respiratory tract infections, urinary tract infections, and skin and mucous membrane infections. Pseudomonas aeruginosa and Staphylococcus aureus are the two most common bacterial isolates in these patients. The authors report a significant effect of diabetes mellitus on chronic rhinosinusitis. These patients are significantly more likely to have nasal polyps,

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.

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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 application of antibacterial drops and corticosteroids. Patients underwent cataract 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, age-related 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