

# АННАЛИ МЕЧНИКОВСЬКОГО ІНСТИТУТУ

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## **КИШКОВИХ ІНФЕКЦІЙ У ДІТЕЙ НА СУЧАСНОМУ ЕТАПІ**

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SOME PECULIARITIES OF CLINICAL PICTURES AND WAYS OF IMPROVEMENT OF TREATMENT OF INTESTINAL INFECTIONS AT CHILDREN TODAY.

Olkhovska O.N.

The main clinical peculiarities of Shigellosis, Salmonellosis, Escherichiosis at 420 yearly age children were performed. Its characterized by high percent of gastroenterocolitic forms, vomiting, ketoacidosis, and dehydration on presentation. The clinical values of ultrasonic investigations of haemodynamic indexes were investigated. It was proposed to add ultrasonic haemodynamic indexes to standards of treatment of severe form of intestinal infectious diseases at children.

## **АНТИМІКРОБНА АКТИВНІСТЬ ЕКОЛОГІЧНО БЕЗПЕЧНОГО РОЗЧИНУ НАНОСРІБЛА, ОТРИМАНОГО ХІМІЧНИМ МЕТОДОМ**

**Міхєнкова А.І., Ніконова Н.О., Романенко Л.І.**

ANTIMICROBIAL ACTIVITY OF ECOLOGICALLY SAFE SOLUTION OF NANO SILVER OBTAINED BY CHEMICAL METHOD

Mikhienkova A.I., Nikonova N.A., Romanenko L.I.

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In experimental investigation the antimicrobial activity of silver nano particles (8-12 nm) in colloid solution and in the matrix of high-dispersive silicon dioxide stabilized by the mixture of polyvinylpyrrolidone and sodium dodecyl sulphate was studied. The quantity of the latter one was decreased to the level of limited permissible concentration. In result of conducted work it was proved that obtained solution kept stability and the high antimicrobial effect for test strains of E. coli and S. aureus: after 1-2 hours of exposition the reduction of them for more than 5 lg was reached. The obtained data allowed recommend studied solutions in the base of silver nano particles for the use as ecologically safe preparations with antimicrobial activity in the different fields of medicine, biology and food industry.

## **АНТИКОМПЛЕМЕНТАРНА АКТИВНІСТЬ ПРЕДСТАВНИКІВ МІКРОБІОЦЕНОЗУ ТОВСТОЇ КИШКИ У ХВОРИХ НА РЕВМАТОЇДНИЙ АРТРИТ**

**Кучмак О.Б., Климнюк С.І.**

Anticomplementary activity of COLON microbocenosis REPRESENTATIVES IN PATIENTS WITH RHEUMATOID ARTHRITIS

Kuchmak O.B., Klymnyuk S.I.

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The classic bacteriological method was used for investigation of colon microbiocenosis in 72 patients with rheumatoid arthritis at the age of 20 to 55 years. It was revealed that patients with rheumatoid arthritis had dysbacteriosis mainly I (37,5%) and II (41,7%) degree. Some populations of bacteria isolated from these patients had anticomplementary activity that was most prominent in gram-negative than in gram-positive microorganisms. Lactobacillus rhamnosus GG probiotic strain had a pronounced antagonistic activity against important representatives of colon microbiocenosis: E. coli, Enterococcus spp., Klebsiella spp., S. aureus, but more than 60,0 % of clinical strains of Pseudomonas aeruginosa were insensitive to the action of this antagonist.

## **СОДЕРЖАНИЕ ЦИТОКИНОВ И С-РЕАКТИВНОГО ПРОТЕИНА В СЫВОРОТКЕ КРОВИ БОЛЬНЫХ ХРОНИЧЕСКИМ ЛАРИНГИТОМ С ПЕРСИСТЕНЦИЕЙ ГЕРПЕСВИРУСНОЙ ИНФЕКЦИИ (ВПГ 1-2 ТИПОВ)**

**Гарюк Г.І., Куликова Е.А., Зуєтир Самір**

CYTOKINES AND C-REACTIVE PROTEIN CONTENT IN SERUM BLOOD OF PATIENTS WITH CHRONIC LARYNGITIS DISEASE

Garjuk G. I., Kulikova E.A., Zaetir Samir

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Some kinds of interleukines and C-reactive protein of acute phase of patients with chronic laryngitis disease were investigated. There is "cytokines explosion" of the patients chronic laryngitis with persistent herpes simplex virus. Comparative investigation cytokine profile in serum blood demonstrated: balanced reaction cytokines profile of patients chronic laryngitis without persistent herpes simplex virus and dysbalanced reaction of patients laryngitis (hyperergation). Increased content IL-6 and low content  $\gamma$ -interferon and tumor necrosis factor (TNF- $\alpha$ ) are predisposition of chronisation inflammation processes in larynges. This situation needed in sighting correction.

## **ВИВЧЕННЯ ІНФІКОВАНОСТІ ХВОРИХ НА ДОБРОЯКІСНУ ГІПЕРПЛАЗІЮ ПЕРЕДМІХУРОВОЇ ЗАЛОЗИ ( ДГПЗ ), УСКЛАДНЕНУ ТА НЕУСКЛАДНЕНУ ГОСТРОЮ ЗАТРИМКОЮ СЕЧІ**

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STUDY OF INFECTION OF PATIENTS WITH BENIGN PROSTATIC HYPERPLASIA, COMPLICATIONS AND UNCOMPLICATED ACUTE URINARY RETENTION

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Rymsha O. V.

The paper presents the results of bacteriological studies of pathological material from patients after surgery for BHPG. complications and no complications of acute urinary retention. Material for the study were - urine intraoperatively removed tissue of the prostate and prostate secretion. Clinical isolates of microorganisms were characterized by morphological, Cultural and biochemical properties. The greatest number of complications and

longest postoperative period were observed in patients with chronic infection caused by gram flora. Frequency of Gram-negative bacteria in the samples was 69.3%, gram-positive - 25%.

### **ИЗУЧЕНИЕ МИКРОБИОЦЕНОЗА КОЖИ ПРИ СОЗДАНИИ ЭКСПЕРИМЕНТАЛЬНОЙ МОДЕЛИ ФЛЕГМОНЫ У КРЫС**

**Скаковская О.И., Степанский Д.А., Кременчуцкий Г.Н., Дроздов А.Л.**

**IN THE STUDY OF MICROBIOCENOSIS OF SKIN AT CREATION OF EXPERIMENTAL MODEL OF PHLEGMON FOR RATS.**

Skakovskaya O.O., Stepansky D.O., Kremenchutsky G.N., Drozdov A.L.

The positive role of microorganisms of skin is well-known in maintenance of health of macroorganism. A question about the role of microorganisms of skin in development of phlegmon remains to the not end studied. **281** Understanding of conformities to law of change of microbial landscape of skin at a festering-inflammatory defeat (to the phlegmon) will allow considerably to optimize diagnostics and treatment of this pathology. In this work the changes of microbial landscape of skin of intact rats were appraised and at the design of phlegmon. Heterogeneity of specific composition of microflora of intact skin of white rats is rotined, taking part in an experiment, which is presented saprophyte and conditional-pathogenic microorganisms. Specific composition of skin of rats changed during the design of phlegmon, new kinds appeared (*S. aureus*, *K. pneumoniae*). In 7 % cases from the place of phlegmon bacterial associations were selected, presented *S. aureus*, *K. pneumoniae* and *fungi*.

### **ОСОБЛИВОСТІ ФОРМУВАННЯ БАКТЕРІАЛЬНИХ БІОПЛІВОК НА ПОВЕРХНІ ХОЛЕСТЕАТОМ ПРИ ХРОНІЧНИХ ГНІЙНИХ СЕРЕДНІХ ОТИТАХ**

**Могилівська Н.М., Войцеховський В.Г., Сушко Ю.О., Борисенко О.М., Сребняк І.А.**

**FEATURES OF BACTERIAL BIOFILMS FORMING ON THE SURFACE OF CHOLESTETOMAS AT CHRONIC SUPPURATIVE OTITIS MEDIA**

Mogylyvska N.M., Voytsehovskiy V.G., Soushko Yu O., Borysenko O.M., Srebnyak I.A.

The results of detection of microorganisms on the surface of cholesteatomas and also from the exsudate of cavity of middle ear are presented in this work. By the method of raster electronic microscopy on the surface of cholesteatomas which removed during operations, had been found bacterial biofilms, and through bacteriological researches were isolated microorganisms of different species (*S. epidermidis*, *P. aeruginosa*, *S. aureus*, *S. saprophyticus*, *E. coli*, *E. cloacae*, *Micrococcus* spp., *Citrobacter* spp., *Corynebacterium* spp.). Comparison of bacteriological and electronic microscopic data has confirmed a hypothesis that biofilms are not found by standard cultural methods. It is necessary to carry out bacteriological studies of cholesteatomas, removed during operations, for the purpose of improvement diagnostics and prescription etiotropic antibiotic therapy. **284**

### **ОСОБЕННОСТИ ИНТОКСИКАЦИОННОГО СИНДРОМА У БОЛЬНЫХ ОСТРОПРОГРЕССИРУЮЩИМ ТУБЕРКУЛЕЗОМ ЛЕГКИХ**

**Лебедь Л.В., Киреев И.В. \*, Потейко П.И., Ляшенко А.А.**

**FEATURES OF INTOXICATION SYNDROME IN PATIENTS WITH ACUTELY PROGRESSIVE PULMONARY TUBERCULOSIS**

Lebid L.V., Kireyev I.V., Poteyko P.I., Liashenko A.A.

The features of intoxication syndrome in patients with acutely progressive pulmonary tuberculosis during the epidemic of tuberculosis in Ukraine. The analysis is performed on two groups of patients with acutely progressive pulmonary tuberculosis: 115 patients treated in a tuberculosis clinic in 1993-1995 and 100 patients treated in 2006-2009. For objective assessment of the severity of intoxication syndrome was used test available - haematological toxicity index, which was calculated for the clinical analysis of blood. It is established that patients, treated in 2006-2009, had a slower regression of intoxication syndrome. Studying the dynamics of the haematological toxicity index in the dynamics after three and six months of chemotherapy led to the conclusion about the need for intensive detoxification, not only in patients with severe intoxication syndrome, but also for weakly expressed. **289**

### **ПЕРСПЕКТИВНІСТЬ ВИКОРИСТАННЯ ПРОТИВІРУСНИХ ЗАСОБІВ У КОМПЛЕКСНІЙ ТЕРАПІЇ ХВОРИХ НА ГОСТРИЙ КОРОНАРНИЙ СИНДРОМ З ПЕРСИСТУЮЧОЮ ГЕРПЕСВІРУСНОЮ ІНФЕКЦІЄЮ**

**Яковлева Л.М., Перемот Я.О., Перемот С.Д., Смілянська М.В., Кашпур Н.В., Волянський А.Ю., Алоїз Бомба, Данкович О.М.**

**PROMISING USE OF ANTIVIRAL AGENTS IN THE TREATMENT OF PATIENTS WITH ACUTE CORONARY SYNDROME AND PERSISTENT HERPES VIRUS INFECTION**

Yakovleva L., Peremot J., Peremot S., Smelyanskaya M., Kashpur N., Volyanskiy A., Alois Bomba, Dankovich A. **293**

Under the influence of specific antiviral immunoglobulin treatment reduced the level of CRP was 2.4-fold, TNF- $\alpha$  by 2.3-fold, and IF leukocytes by 24%. Dynamics of lipoprotein parameters in patients with ACS at high risk of coronary events, after the application of specific immunoglobulinoterapii shows a decline in CA and 1.5 times tended to normalize the levels of LDL-C and HDL-C. Stabilization of coronary heart disease in a subgroup of patients treated with anti-immunoglobulin, nearly one and a half times higher than patients with GCS group who

received only conventional basic therapy, accompanied by clinical deterioration in 13.3% of patients and resulted in 2 cases of fatal coronary events.

### **ЗОПРЕНОЇДНИЙ СКЛАД СИРОВИНИ *VISCUM ALBUM***

**Упир Д.В., Кисличенко В.С., Мартинов А.В.**

**IZOPRENOIDS COMPOSITION OF THE *VISCUM ALBUM* RAW MATERIAL**

Upr D.V., Kyslychenko B.S., Martynov A.V.

Qualitative and quantitative composition of terpenoids in the *Viscum album L.* raw material, harvested from 298 different trees of the host (linden and poplar), has been studied by gas chromatography method. The content of terpenoids in grass mistletoe was 0.28% and 0.14% respectively. It was determined 133 compounds are 98 compounds were identified. Among the identified compounds 35 were found in both extracts, 9 - only in mistletoe harvested from lime (1.8-cineole, camphor,  $\beta$ -eudesmol, etc.), 19 substances - only in mistletoe harvested from poplar ( $\alpha$ -isophorone,  $\beta$ -farnesene,  $\beta$ -ionone, farnesol,  $\alpha$ -bisabolol etc).

### **ЗАВИСИМОСТЬ КЛИНИЧЕСКОЙ КАРТИНЫ РОТАВИРУСНОЙ МОНО- И МИКСТ-ИНФЕКЦИИ У ДЕТЕЙ ОТ ИСХОДНОГО УРОВНЯ ИНТЕРЛЕЙКИНОВ**

**Кирсанова Т.А.**

**DEPENDENCE OF CLINICAL MANIFESTATION OF ROTAVIRAL MONO- AND MIXED INFECTION AT CHILDREN FROM INITIAL LEVEL OF INTERLEUKINS**

Kirsanova T.A.

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The article presents the results of the study of definition the cytokine status at children with rotaviral and rotaviral-bacterial infections and communication revealing between indicators of level interleukins and clinical manifestation of disease. Reliable direct connection between the level of interleukins and clinical manifestation of disease has been detected. It appears to be the factor which regulates inflammatory process, and causes the formation of pathological process in the gastrointestinal tract and the systemic inflammatory answer. That in the whole defines the presence and full-blown character of the clinical displays of the disease.

### **ФОТОДИНАМІЧНИЙ ВПЛИВ НА ПЛАНКТОННІ ФОРМИ Й БІОПЛІВКИ ІЗОЛЯТІВ *S. PYOGENES*, *S.AUREUS* ТА *PROTEUS SPP.***

**Циганенко А.Я., Мішина М.М., Дубовик О.С., Мішин Ю.М.**

**PHOTODYNAMIC INFLUENCE ON PLANKTON FORMS AND BIOFILMS OF *S. PYOGENES*, *S. AUREUS* AND *PROTEUS SPP.* ISOLATES**

Tsyganenko A.J., Mishina M.M., Dubovik E.S., Mishin Y.M.

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The effect of blue and red light diode radiation was studied on the plankton forms and biofilms of bacteria, causative agents of purulent inflammatory processes, depending on chronoinfrastructure. It was revealed that isolates reacted differently on the light diode radiation: the blue light mainly inhibited the ability of biofilm production by plankton cells and the ability of preformed biofilms to produce plankton cells, while the red light in most cases did not influence the formation of primary biofilm and inhibited the release of plankton cells by the preformed biofilm to a less extent.

### **ПРЕПАРАТЫ НА ОСНОВЕ ФЕНОЛЬНОЙ ГИДРОФИЛЬНОЙ СУБСТАНЦИИ ПРОПОЛИСА И ИХ ПРИМЕНЕНИЕ В ТЕРАПИИ ИНФЕКЦИОННЫХ ЗАБОЛЕВАНИЙ**

**Радченко Е.А., Шульга Н.Н., Гушилик Б.И., Альхусейн Мустафа Али, Черняева С.А.**

**PREPARATIONS ON BASIS OF PHENIC HYDROPHILIC SUBSTANCE OF PROPOLIS AND THEIR APPLICATION ARE IN THERAPY OF INFECTIOUS DISEASES.**

Radchenko E.A., Shulga N.N., Gushilik B.I., Al'khuseyn Mustafa Ali, Chernyaev S.A.

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The problem of search of effective antibacterial preparations is conditioned high morbidity and wide prevalence of infectious diseases. In spite of intensive skring, conducted in the whole world, the amount of antibacterial preparations at the row of infections is limited. We are study antibacterial and antiviral activity of therapeutic preparations on the basis of phenic hydrophilic substance of propolis and perspective of their use is rotined for treatment of infectious diseases. Study clinical efficacy "Propolitin" and «Propomedin». Which are created on the basis of phenic hydrophilic fraction of propolis and the prospect of their application is rotined in treatment of infectious diseases.

### **ГЕНОТИПИРОВАНИЕ *CHLAMYDIA TRACHOMATIS*, ВЫЯВЛЕННЫХ В ОБРАЗЦАХ, ПОЛУЧЕННЫХ У БОЛЬНЫХ С УРОГЕНИТАЛЬНОЙ ПАТОЛОГИЕЙ В СЕВЕРОВОСТОЧНОМ РЕГИОНЕ УКРАИНЫ**

**Литовченко О.А.**

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**GENOTYPING OF *CHLAMYDIA TRACHOMATIS* OBTAINED FROM PATIENTS WITH UROGENITAL PATHOLOGY IN NORTH-WEST REGION OF UKRAINE**

Lytovchenko O.

The genotype distribution of *Chlamydia trachomatis* in patients with urogenital pathology in North-West region of Ukraine was investigated with aid of restriction analysis. The most prevalent genotypes were E, G and F, detected in 24 %, 23,5% и 21,2 % of cases.

**ВПЛИВ ФІЗИЧНИХ ТА ФІЗИКО-ХІМІЧНИХ ЧИННИКІВ НА ІМУНОБІОЛОГІЧНІ  
ВЛАСТИВОСТІ ДИФТЕРІЙНОГО ТОКСИНУ**

**Калініченко С.В., Бабич Є.М., Ківва Ф.В., Рябовіл О.В., Горбунов Л.В., Рижкова Т.А., Скляр Н.І.,  
Коваленко О.І., Катріч В.О., Ждамарова Л.А., Бобирева І.В., Антушева Т.І., Калініченко О.О.**

**THE INFLUENCE OF PHYSICAL AND PHYSICOCHEMICAL FACTORS ON IMMUNOBIOLOGICAL  
PROPERTIES OF DIPHTHERIA TOXIN**

Kalinichenko S.V., Babych, E.M., Kivva F.V., Ryabovol E.V., Gorbunov L.V., Ryzhkova T.A., Sklyar N.I.,  
Kovalenko O.I., Katrych V.A., Zhdamarova L.A., Bobyreva I.V., Kalinichenko E.O.

**316**

The influence of physical (ultrasound, temperature) and physicochemical (formalin, temperature, ultrasound) factors on the immunobiological properties of diphtheria toxin and its modifications was studied. It was established that exposure of these physical factors did not lead to the destruction and inactivation of the native diphtheria toxin. Formalin volume fraction reduction by half did not significantly affect the specific activity and safety of diphtheria toxin. Ultrasonication of the samples with formalin resulted in reduction of epidermal reaction up to the total absence of any signs of hyperemia. It was determined that certain diphtheria toxin derivatives, obtained by physical and chemical factors, are nonhazardous.