

thickened covering laminated pavement epithelium. Mostly inflammatory and destructive changes of the mucous membrane were detected in patients with acid reflux. Erosions and ulcers of the esophageal mucosa were found in a part of patients. In patients with acid reflux against the ground of inflammatory and destructive changes of the mucous membrane there were more cases of Barrett esophagus found as compared to the group of patients with alkaline reflux (9 and 5 cases respectively). A comparative analysis of histological manifestation of the esophageal mucosa in its lower third in patients with GERD was indicative of the fact that in patients with alkaline reflux hyper-regenerator changes of the mucous and submucous layers prevail, whilst in case of acid reflux inflammatory infiltration of the mucous and submucous layers were mostly found.

#### PROSPECTS OF THE RESEARCH OF ANTIMICROBIAL ACTIVITY OF COLLOIDAL LIQUIDS OF CUPRUM NANOPARTICLES

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**Introduction:** Despite rapid progress in the creation of drugs and the development of pharmaceutical technologies, infectious diseases caused by bacteria, remain one of the biggest public health problem worldwide, affecting millions of people each year. **Aim:** The aim of the research is to find the ratio between output components for getting stable colloidal liquids of cuprum nanoparticles and installing the spectrum of their antimicrobial action. **Materials and Methods:** Colloidal liquids of nanoparticles of copper were synthesized for the study by the recovery of copper salt ( $\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$ ) with tetrahydroborate of sodium ( $\text{NaBH}_4$ ) at a temperature of 200C, pH = 6.0. Absorption spectra have been recorded using a spectrophotometer USB-650 (Ocean Optics). Installation of antimicrobial properties has been held by micro method of two-fold serial dilutions in polystyrene plates with using of Takachi's microtitrator. **The received results and their discussion:** Analysis of antimicrobial properties showed that the liquid № 17 (Cys: Cu:  $\text{NaBH}_4$  - 6,15: 1: 1.76) in a 1:16 dilution showed minimal fungistatic action, and in a dilution of 1: 8 - minimum fungicidal action against 4- hour test culture *C.albicans*. The tested solution caused the violation population of test-culture *C.albicans*, which reduced 2.5 times from  $2,8 \times 10^3$  CFU / ml to  $1,17 \times 10^3$  CFU / ml (range of uncertainty ( $M \pm 2\delta$ ) –  $1,17 \times 10^3 \pm 3,06 \times 10^2$ ). **Conclusions:** The study showed the presence of expressed fungistatic properties of colloidal liquids of nanoparticles of copper (Cys: Cu:  $\text{NaBH}_4$  - 6,15: 1: 1.76) in a 1:16 dilution, that reflected in violation of population level of test-culture *C.albicans*.

#### WERNICKE'S ENCEPHALOPATHY AS A CAUSE OF DEATH IN ALCOHOL ADDICTS: AUTOPSY STUDY

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**Objective:** To establish the frequency of WE as the cause of death for a one-year-period, and to analyze the sample according to gender and age, risk factors and autopsy findings of subjects. **Methods:** A retrospective autopsy study was performed for a one-year-period (2015), total - of 848 forensic autopsies. The study was performed at the Chernivtsi Regional Pathology Bureau. The relevant data were collected from autopsy records, case histories and heteroanamnestic interviews. The sample was analyzed according to gender, age, blood alcohol concentration, risk factors, and autopsy findings of all observed subjects. **Results:** The part of deaths, caused by WE, was 3.3% - 28 subjects ( $\chi^2=4.31$ ;  $p<0.05$ ). All of them were males, of average age  $44 \pm 17.5$  years (min=27, max=62; med=45, mod=45). 25 of subjects (89.3%) have been delivered from Chernivtsi Regional Hospital of Psychiatry and Neurology, the others 3 (10.7%) – from different District hospitals. In all subjects blood alcohol concentration ranged from 0.50 to 3.32 promille (average  $1.81 \pm 0.93$ ). The younger the observed subject was, the higher the blood alcohol concentration ( $r=-0.251$ ;  $p=0.04$ ). All of the observed subjects were chronic alcohol abusers. Thirteen persons had psychiatric manifestations before to die. The most frequent thanatological findings in the analyzed subjects were brain edema, atlanto-axial dislocation, intracerebral hemorrhages. In 23 observed subjects the concomitant appearance of pulmonary edema and cardiomyopathy were established ( $\chi^2=49.59$ ;  $df=3$ ;  $p<0.001$ ). **Conclusion:** In the analyzed one-year period WE was enough often cause of death in alcohol abusers. The most of the deceased were young males, or of working age. Our findings show that WE may be regularly present in a routine autopsy series, and doctors awareness about it has continue to increase.

#### RISK ASSESSMENT THE IMPACT OF PESTICIDES ON THE HEALTH STATUS OF THE RURAL POPULATION

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**The purpose of the study:** the Study of morbidity on data of appealability of the population. **Materials and methods:** For a preliminary assessment of potential adverse effects of contamination of the environment by pesticides on the health of the rural population, data were collected about the primary morbidity of the rural population living in the regions studied by classes of diseases over the period of 2005-2007 (according to official statistical reports of the MOH). **The result of research and discussion:** For the purpose of in-depth study of the health status of residents of the studied districts of Akmola region (Akkol, Atbasar, Zerenda and Shchuchinsk), were studied morbidity according to appealability (reporting form № 18) by classes of diseases for the period 2004-2006, Calculated structure and level of morbidity by appealability per 1000 rural population of appropriate age in the following groups: children from 0 to 14 years; adolescents 15 to 17 years; adults 18 years and older. It is known that the formation of a morbidity of the population affected by a range of factors of different nature, including socio-economic, causing a reduction in the uptake of medical care. Due to this an average annual incidence during the study. Assessment of coupling strength between indicators of the primary morbidity and the value of territorial load pesticides in a number of districts of Akmola region carried out on the basis of the calculation of the coefficient of the Spearman rank correlation. As a result of calculations, the rank correlation coefficients that characterize the causal link between territorial load of pesticides and morbidity of the population as average for the following classes of diseases: -neurological diseases (0,6 – for children from 0 to 14 years; 0,5 – for adults from 18 years); - diseases of the circulatory system (0.5 to adults 18 years and older); - diseases of the skin and subcutaneous tissue (0.5 for children aged 0 to 14 years); - diseases of the genitourinary system (0,6 - for children aged 0 to 14 years). The duration of the conducted research the scope and incompleteness of data on the use of pesticides at this stage of the study, does not accurately describe the