

In studying the material from patients with severe LS, the following results were obtained: a decrease in the frequency of secretion from the nasopharynx of nonpathogenic Streptococcus and Neisseria; Staphylococcus belonging to the association was dominated by *S. haemolyticus*. In 11.5% of cases, we observed the association of streptococcus with *K. pneumoniae*, which is almost 2 times more frequent than patients with stage II severity.

When investigating the material of the upper respiratory tract of healthy persons, the vast majority were representatives of the genus *Streptococcus* "Viridans" and unpopular representatives of the genus *Neisseria*.

Upon identification of the streptococcal component of the nasopharynx, an increase in the amount of *Str. salivarius*, which is a relative indicator of the normocenosis of a healthy person.

Conclusions. Based on the results of the analysis, it has been shown that CRL and LS have certain features of prevalence, course, and gender differences. It was established that in the biota of the upper respiratory tract of healthy individuals, the representatives of the indigenous microflora prevailed.

In the examination of patients with II-III degree of severity of the course of dermatoses, there was a tendency to form associations with autochthonic microflora with representatives of allochthonous microflora.

Separate pathogenicity factors of staphylococci isolated from patients with LS and CRL. Monitoring of sensitivity to antibiotics of isolated clinically meaningful *Staphylococcus* and *Klebsiella* showed the circulation of strains resistant not only to individual drugs, but also to the multiresistant, which accounted for 26.0%.

THE DISINFECTANTS' ANTIFUNGAL ACTIVITY DETERMINATION

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Introduction. Candidiasis is an anthroponotic disease that is caused by a yeast-like fungus of the genus *Candida*. It is accompanied by the lesions in mucous membranes, gastrointestinal tract, urinary system, internal organs, skin and nails with the whitish pellicle formation. According to statistics, about 70% of mature women at least once in their life faced with this pathology, and in 15-20% of patients candidiasis becomes chronic.

Aim. Get acquainted with the fungus of the genus *Candida* and examine its sensitivity to antifungal disinfectants.

Materials and methods. To achieve this goal we studied the literature about the fungus, its morphology, cultural and pathogenic properties, risk factors, diagnostic technics and resistance to disinfectants. And also we have worked out a cultural method for determining the sensitivity of the *Candida albicans* museum strain to the disinfectant from the peroxy acids group.

Results and discussion. *Candida* is a yeast-like microorganism of oval or rounded shape, 1.5 – 10.0 microns in size. *Candida* is capable of producing pseudomycelium, blastospores, chlamydozoospores, gromerules. *Candida* is an aerobic microorganism. Most often it is cultivated on the Sabouraud and *Candida* Agar medium, where it forms a colony after 2-5 days. The main causative agents of candidiasis are *Candida albicans*, *Candida parapsilosis* and *Candida tropicalis*. Their pathogenic properties are: the enzymes and toxins presence, due to which it is capable to adhesion to the cells of the body, invasive growth in its tissues, toxic effects on the body, as well as its allergenicity. *Candida* fungi are those microorganisms that are found in the normal humans' microflora in a small frequency. Candidiasis develops under a significant decrease in immunity (radiation exposure, tumors, diabetes, prolonged usage of antibiotics, HIV infection). There are such forms of candidiasis: vaginal, urethrogenic, intestinal, cutaneous, oral, mucous membranes and visceral. The main diagnostic method is mycological examination, which includes microscopic and culture methods. The testing materials are urine, feces, mucous membranes swabs, blood, cerebrospinal fluid, vaginal secretions, pleural cavity punctates, etc. The pseudomycelium microscopic detection in smears from pathological material has the diagnostic significance and indicates the *Candida* invasive growth.

To disrupt the Candidiasis development chain, disinfectants must be used. Disinfection is the killing of pathogenic and opportunistic microorganisms on (in) the environmental objects. The mechanism of action of disinfectants proceeds in two directions: the colloidal state of the cell of the microorganism is disturbed, and the main component of protoplasm – protein – is exposed to their direct destructive influence. First of all, disinfection should take into account the Candida resistance to disinfectants of various chemical groups.

Conclusions. To prevent the development of the yeast-like fungi resistance to disinfectants, it is necessary to conduct a studies of new agents and improve its usage regimens.

THE INFLUENCE OF SALTS OF HEAVY METALS ON THE GROWING OF *LACTOBACILLUS BULGARICUS* CULTURE ON AGARISED MRS

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Introduction. Since ancient times, people have used a wide variety of lactic acid bacteria to make lactic acid products such as kefir, brasserie, kumys, yoghurt, etc., not knowing at the same time that they are to some extent protect themselves against the effects of pathogenic bacteria. Data on the treatment of sour-milk products are still found in the «Canon of Medical Science» Abu Ibn Sina. For the first time scientifically substantiated the role of lactobacilli in preventing the development of rotting processes in the digestive tract Mechnikov I.I. He put forward the idea of replacing the harmful flora of the intestine with the use of bacteria *Lactobacillus bulgaricus* and others that can suppress the development of pathogenic microflora.

Normal microflora is more resistant to the effects of external physical, chemical and biological factors, regulating the relationship between the environment and the body, and protects the latter from adverse effects. But such a balance of the microbial ecosystem may be affected by environmental factors such as chemical or radiation factors, etc. Normal microflora, especially intestinal microflora, has a marked detoxification effect in relation to endogenous and exogenous factors due to hydrolytic and restorative reactions.

Often, microflora manifests itself as a natural sorbent, accumulating in itself a considerable amount of various toxic substances: metals, phenols, poisons, etc. The most dangerous toxicants, along with radionuclides and pesticides, are heavy metals. The term «heavy metals» is understood as a group of metals with a density greater than 5.0 g/cm³ or with an atomic number of more than 20. These include a number of environmental pollutants: Cd, Pb, Ni, Cr, Hg, Cu, Zn and others.

Aim. The aim of the research was to determine the influence of aqueous solutions of salts Hg(NO₃)₂, Bi(NO₃)₂, Pb(NO₃)₂, Co(NO₃)₂, CuSO₄, NiSO₄, ZnSO₄ in concentrations of 0.01 mol / l and 0.001 mole / l on the growth of *Lactobacillus bulgaricus*.

Materials and methods. In this research, object is the bacteria *Lactobacillus Bulgaricus* that used in the preparation of home yogurt. These bacteria were cultivated in solutions of salts Hg(NO₃)₂, Bi(NO₃)₂, Pb(NO₃)₂, Co(NO₃)₂, CuSO₄, NiSO₄, ZnSO₄, NaCl at concentrations of 0.01 mol / L and 0.001 mol / l. This range of concentrations corresponds to the actual concentrations in soil and groundwater in the natural environment, and therefore the salts in such concentrations are most likely to enter the food.

The method of research is:

1. Preparation of aqueous solutions of salts of heavy metals.
2. Preparation of the product «Yogurt».
3. Preparation of culture samples for research.
4. Cultivation of *Lactobacillus bulgaricus*.
5. Carrying out organoleptic analysis.
6. Homogenization of the product obtained.
7. Sampling of the product on the nutrient medium «agarized MRS».
8. Counting of microorganisms of *Lactobacillus bulgaricus*.