TO THE CANDIDA GLABRATA IDENTIFICATION AND SUSCEPTIBILITY TO ANTIFUNGAL DRUGS DETERMINATION

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Introduction. Fungi of the genus Candida are found in the normal microflora of the mouth, vagina, gastrointestinal and urogenital tract in healthy individuals. They are opportunistic organisms. Candidiasis develops under certain conditions that contribute to the rapid multiplication of these fungi.

The Candida detecting gold standard is a microbiological method of cultivation on nutrient media (inoculation into liquid or solid Sabouraud medium). When identifying should pay attention to the C. glabrata morphological and cultural characteristics. It do not form pseudomycelium. Some strains usually form a smooth, glossy surface colonies with a soft texture. When C. glabrata is cultured on Sabouraud glucose agar with specific indicators, colonies acquire specific pink color. Also C. glabrata zymogram includes a positive trehalose reaction and negative maltose, saccharose, galactose and lactose reactions.

Results and discussion. The sensitivity of the isolated microorganisms to antimycotic drugs determination is used mainly for lack of treatment efficacy or during the transition from parenteral antifungal drugs to oral another anti-fungals (fluconazole), if the long-term Candida infections (for example Candida meningitis, endocarditis or osteomyelitis)treatment is necessary. In the treatment of Candida infections amphotericin B, fluconazole, itraconazole, ketokanozol are often used. After analyzing their minimum inhibitory concentration (MIC) it can be concluded about these medicines effectiveness. Itraconazole was the most effective (MIC 0.5-4.0 mcg/ml); Ketokanozol (MIC 1.0-4.0 mcg/ml); Amphotericin B (MIC 2.0 mcg/ml). Fluconazole (MIC 32-64 mcg/ml) was the least effective.

Nowadays, many infectious diseases are difficult to antibiotic therapy. Therefore, it is important to determine the sensitivity of microorganisms to antibiotics. Methods for determining the sensitivity of fungi and microorganisms to antibiotics and antifungal, divided into 2 groups: the diffusion and dilution methods. Now the polymerase chain reaction for the specific microbes and fungi responsible for drug resistance formation genes detection is widely used.

Conclusions. After studying the C. glabrata identification methods and its sensitivity to antimycotic preparations it can be concluded that the fungus can be identified without any costs (using glucose in the medium). For Candida glabrata infections treatment Itraconazole, Ketokanozol, Amphotericin B and Fluconazole are usually prescribed. C. glabrata showed the greatest sensitivity for Itrakanozol, and the smallest to Flucanozole.