

**Results and discussion.** The results of microbiological studies showed that the drug Nokamen compared with drugs Canephron and Urolesan in conditions in vitro showed higher levels of antimicrobial effect. Found synergistic antimicrobial effect of the Nokamen with the drug Ciprofloxacin, virtually no effect in the combined use of the drug Nokamen with drugs Bi-Sept, Levofloxacin, Furazolidone.

**Conclusions.** The prospects of further exploring the possibility of sharing drugs for the treatment of infections of the urinary tract.

## L-FORM BACTERIA AND CHRONIC DISEASES

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**Introduction.** In the human body, under the action of antibiotics, enzymes and antibodies, bacteria can completely or partially lose the cell wall, that is, transform into *L*-forms. In spite of the absence of a cell wall, *L*-forms retain their ability to multiply and develop. *L*-forms are formed under the action of agents that block the synthesis of the cell membrane (antibiotics), in conditions of increased osmotic concentration of the medium. *L*-transformation of bacteria can often complicate the process of treating the disease that they cause.

**Aim.** Determine which diseases and treatments with which chemotherapeutic agents most often form *L*-forms of bacteria.

**Materials and methods.** Analysis of the scientific literature and the results of the advanced research in the field of medicine and pharmacology.

**Results and discussion.** The most studied are *L*-forms of mycobacterium tuberculosis, which is associated with the widespread use of various anti-tuberculosis drugs and antibiotics for the treatment of sick people. *L*-forms of mycobacterium tuberculosis can be found in a macroorganism in a stable and unstable state, that is, to reverse the original microbial form with restoration of virulence, which can greatly complicate the treatment of this disease. It has been proven that mycobacterium tuberculosis forms *L*-forms that can survive long time in the human body, animals and in the environment. *L*-transformation of mycobacterium tuberculosis can occur under the influence of the factors of the environment itself, the use of chemotherapy, protective reactions of the organism.

One of the representatives of microorganisms that can form *L*-form, is mycoplasma. Mycoplasmas usually populate the mucous; In many species of animals, they cause chronic inflammation of the respiratory and urinary tract, genital organs, and joints. In the human body 14 species of mycoplasmas live, but they occur with different frequencies. *Mycoplasma orale* and *Mycoplasma salivarium* are part of the normal microflora of the oral cavity. *Mycoplasma pneumoniae* – a common pathogen for pneumonia in adults and children. *Ureaplasma urealyticum* and *Mycoplasma hominis* live in the urinary tract and genital organs of many healthy people; it is conditional pathogenic microorganisms that cause a number of infections in adults and newborns.

*L*-transformation is inherent in almost all types of bacteria, such as cocci, intestinal sticks. *L*-forms are often found in the body with long-running pathological processes, such as brucellosis. The ability to *L*-transformation has a brucellosis pathogen, which also complicates the treatment process.

Brucella – gram-negative bacteria, small in size, differ in large polymorphism. In one preparation one can see both the rod-shaped and the covalent variants, the spores do not form, are non-moving, belong to intracellular parasites. Grow on many artificial nutrient media, but grow very slowly.

Brucellosis is an infectious zoonotic disease with a tendency to prolonged course accompanied by fever, damage to the vascular, nervous, sexual and other systems with a particularly frequent involvement in the pathological process of the musculoskeletal system.

**Conclusions.** The property of bacteria to *L*-transformation is investigated. The exclusive significance of *L*-transformation of pathogenic bacteria is that it is a frequent cause of the transition of acute forms of diseases to chronic and their exacerbations. The ability of pathogenic bacteria to *L*-transformation very often complicates the treatment process.