

# STUDY LACTOBACILLUS PROBIOTIC STRAINS EFFECT ON THE MICROBIOCENOSIS OF THE MUCOUS MEMBRANES OF THE UPPER RESPIRATORY TRACT

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**Introduction.** Diseases caused by *Staphylococcus aureus*, characterized by severe complications and intensive spread of the pathogen in the form of bacteria that is a serious problem of clinical medicine. Today probiotic preparations are widely used to restore normal flora and urogenital tract, and now there is a need microbiological justify the use of probiotic preparations in the treatment of people with chronic diseases of the upper respiratory tract of staphylococcal origin.

**Aim.** To study the effect of probiotic strains *Lactobacillus* microbiota in the mucous membranes of the upper respiratory tract.

**Materials and methods.** *S. aureus*, isolated from patients with chronic forms of ENT diseases (tonsillitis and rynyty) and bacilli carriers (hospital staff) and the probiotic strains *Lactobacillus* seized the drugs that are available in pharmacies in the public domain. Methods: bacterioscopic, bacteriological, biochemical.

**Results.** Among the surveyed health care workers were identified that 30.3% persons were carriers *Staphylococcus aureus*. In patients with chronic forms of ENT diseases (tonsillitis and rhinitis) lecithinase was found in all strains isolated us *S. aureus*. Determined that all investigated strains of *S. aureus* have plasmacoagulose activity. Investigation of *S. aureus* cultures showed that all clinical isolates were able to form biofilms.

Studies have been conducted on the possibility of recovery of colonization and resistance antiinfectious mucous membranes of the upper respiratory tract in carriers of *S. aureus* using probiotic strain *L. rhamnosus* GG, because to him had a high sensitivity 88.0% clinical strains of *S. aureus*.

The use of probiotic strain *L. rhamnosus* GG for sanitation carriers reduced level of *S. aureus* colonization of mucous membranes in 7 and 14 days after the reorganization of lactobacilli suspension, and after 21 days took place complete eradication of *S. aureus* from the mucous membranes of the nose. Reduction of *S. aureus* colonization of mucosal carrier has been accompanied by an increase of the mucous membranes of the number of *Lactobacillus* spp.

**Conclusions.** Established that the use of probiotics for sanitation nasal carriers of *Staphylococcus aureus*, leading to the gradual eradication of the pathogen (*S. aureus*) and improving resistance antiinfectious mucous membranes of the upper respiratory tract.