

4.5% of actinomycetes inhibited the growth of *P. vulgaris*. The same values were obtained in the study of antimicrobial activity against *K. pneumonia*. The presence or possible overexpression of a pleiotropic regulatory *adpA_{gn}* gene had led to growth inhibition zone of *C. albicans* ATCC 885-653 in 8.1% of transconjugants with an activity index ≤ 3 , whereas antibiotic activity was not observed against *P. aeruginosa*.

Conclusions. Overexpression of the pleiotropic *adpA* regulatory gene led to a change in the spectrum of antibiotic activity in 26.4% of strains against *S. aureus*, *E. coli*, *K. pneumonia*, *P. vulgaris* and *C. albicans*, but not against *P. aeruginosa*. This suggests that the integration of the *adpA_{gn}* transcriptional regulation gene under the control of a strong constitutive *ermEp* promoter activated the synthesis of antibiotic compounds.

DEVELOPMENT OF THE COMPOSITION OF NOSAL DROPS WITH TREATMENT-PREVENTIVE ACTION

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Introduction. Runny nose is one of the most common symptoms of infectious and viral diseases. To get rid of it, various agents are used, each of which has a specific purpose (narrows blood vessels, has antimicrobial and anti-inflammatory properties, reduces swelling, etc.). In some cases it is necessary to use a nose drops of combined action in order to influence different links of pathogenesis. This approach helps at the same time relieve the symptoms and have a healing effect.

A special place among the preparations for the prevention and treatment of the runny nose is given to solutions of sea salt. Isotonic solutions are used to clean the nasal mucosa before the introduction of antibacterial agents, and hypertensive solutions are advisable to significant mucosal edema, as their osmotic properties contribute to the removal of edema, increased local circulation and restoration of normal functions mucous.

Aim. The purpose of the study was to create nasal drops based on sea salt with the addition of a combination of active substances aimed at antibacterial and anti-inflammatory action, as well as the recovery of the affected mucosa.

Materials and methods. In addition to the salt of the sea, a substance that has regenerative and emollient properties – dexpanthenol and extracts from vegetable raw materials that have anti-inflammatory and antimicrobial activity, were investigated as a component of the combination. Traditional microbiological, physico-chemical and statistical methods of research were used to accomplish these tasks.

Results and discussion. We have carried out a theoretical analysis of the range of nasal drops containing solutions of marine salts, dexpanthenol and components of plant origin. A number of samples have been developed that contain the active substances separately and combinations thereof to detect the physico-chemical compatibility of the components and to monitor their stability. Chamomile, eucalyptus and aloe extracts were added as plant components. The study of antimicrobial properties revealed the antimicrobial effect of several nasal drops.

Conclusions. As a result of the work, it was found expedient to carry out further studies in order to develop a new combination drug for the treatment of infectious lesions of the nasal cavity, the components of which affect different parts of pathogenesis.

TOPICALITY OF CREATION OF OINTMENT WITH HERBAL EXTRACTS FOR USE IN VETERINARY PRACTICE

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Introduction. An important factor in the cost-effectiveness of animal husbandry is the maintenance of animal health in order to obtain high productive performance and the required reproductive capacity.

Small pets are relatively often prone to injury, in particular domestic and transportation, which is due to their dynamic habitat. In most cases, the most common injury complications are wounds, accounting for about 33% of the pathology of the surgical profile.

Treatment of soft tissue lesions and their complications is one of the major problems in veterinary surgery. The favorable outcome of treatment depends essentially on the provision of qualified medical care, based on a thorough study of the pathogenetic mechanisms of the development of inflammatory processes. Surgical and drug treatment of wounds are complementary components of complex therapy. Therefore, the urgent task is to search for and improve pre-existing surgical and therapist measures that would be effective and justified in treating soft tissue lesions.

Expanding the nomenclature of drugs that reliably suppress the growth of purulent infection in a short time, reduce pain, adsorb exudate, that is, have a complex and multifaceted effect, is an urgent problem, especially due to the resistance of microorganisms to many drugs. One way to solve this problem is to use new, scientifically sound combinations of pharmaceutical substances and excipients to create drugs with certain specified properties.