

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.

**Aim.** Development of an ointment composition for use in veterinary practice during the treatment of wounds in first phase of the wound process

**Materials and methods.** The objects of the study used thick oak bark extract, methyluracil, glycerin, polyethylene oxides of different molecular weights.

In the process of work used conventional organoleptic, pharmaco-technological methods of research.

**Results and discussion.** In the first stage, we conducted an analysis of the pharmaceutical market for veterinary drugs.

Today, the state register of veterinary medicines has almost five thousand names. This registry includes the following sections:

1) medicines: antibiotics (injectable and oral); antiparasitic (anthelmintics, drugs against ectoparasites and pathogens);

2) immunobiological preparations (vaccines, sera, diagnostics, nutrient media);

3) prepared animal feed;

4) premixes and feed additives;

5) disinfectants, insecticides, rodenticides;

6) other veterinary means (enzyme preparations, test systems, etc.).

The market for veterinary drugs is generally represented by generics. There are no new original preparations of domestic manufacturers and production of substances for the manufacture of veterinary preparations. Therefore, there is a demand for original medicines.

Pharmaceutical companies operating in the markets for human and veterinary medicine have the opportunity to reduce time and save money on finding new, more effective drugs by developing new universal drugs that can be used to treat common human and animal diseases, and thus reduce the cost of developing and manufacturing animal treatment products.

Ointments that are the most convenient and effective dosage forms for the treatment of purulent-necrotic processes and wounds are represented by only 15 names, and most of them are of synthetic origin.

The composition of drugs for the topical treatment of wounds in the first phase of the wound process should include the composition of API, one of which has antimicrobial action, the second anti-inflammatory, reparative.

Herbal extracts and medicines with extracts are at the forefront of modern pharmacy. This is due to the low toxicity of herbal medicines and the possibility of long-term their use without side effects. One of these plants is the *Quercus robur*, which is traditionally and widely used in pharmacy and medicine, including veterinary. As an API in the ointment, we have selected a thick oak bark extract (TOBE), whose pharmacological activity is represented by anti-inflammatory, antimicrobial, membrane-stabilizing properties.

To ensure a wide range of pharmacological activity, methyluracil was introduced into the ointment. Methyluracil accelerates regeneration, healing of wounds, stimulates cellular and humoral immunity links, and has anti-inflammatory effect.

The choice of ointment was based on the medical and biological requirements for ointments used in phase I wound healing process. Given the hydrophilic nature of (TOBE), as well as the appointment of the ointment, we have selected the known composition of PEO-400 and PEO-1500 in the ratio of 8: 2 as the carrier base.

**Conclusions.** Thus, the conducted studies have proven the relevance of the development of ointments for the treatment of animals. The active substances of ointment are selected - thick oak bark extract and methyluracil, which will provide complex pharmacological action of ointment.