

## **RATIONALE FOR THE CHOICE OF DOSAGE FORM IN THE DEVELOPMENT OF THE COMPOSITION OF A VETERINARY DRUG WITH HYDROCORTISONE**

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**Introduction.** To date, for the pathogenetic therapy of atopic dermatitis in dogs, doctors use systemic drugs such as antihistamines and glucocorticosteroids. Based on data from various studies, glucocorticosteroids have many undesirable side effects with systemic and prolonged use. In order to avoid side effects, it is rational to use these drugs in the form of dosage forms for topical use in the treatment of atopic dermatitis in dogs.

**Aim.** Show the need to develop a new topical veterinary extemporal preparation in the form of a gel for the treatment of atopic dermatitis in dogs.

**Material and methods.** In the framework of the work carried out, materials of articles from scientific journals, irregular publications, as well as educational literature were used.

**Result and discussion.** From our survey, we can single out the fact that in most cases, for the treatment of atopic dermatitis, doctors use systemic GCS such as: dexamethasone, prednisolone, methylprednisolone. Based on this, there is a need to develop a drug for topical use, which would include GCS, since by using a topical drug, we reduce the number of possible side effects that would occur with systemic use. Choosing between dosage forms, we came to the conclusion that it is most rational to use a gel. In comparison with other dosage forms, gels have a number of advantages: they are easy to apply and adhere to the surface, provide long-term contact with the surface, thereby prolonging the effect of the drug, the high viscosity of the dispersion medium allows chemically incompatible substances to be included in the composition, preventing their interaction. We have studied such gelling agents as Carbopol, Aristoflex, Sepimax. Carbopol is a high molecular weight polymer of acrylic acid, well dispersed in water with the formation of viscous dispersions, effectively retains and releases active substances, has a low pH value. Aristoflex is a neutralized crosslinked copolymer of acrylamidopropylpropane sulfonic acid and vinylpyrrolidone. Sepimax is a cross-polymer polyacrylate that does not require neutralization, is resistant to electrolytes, pH range = 2-8.

**Conclusions.** Based on the data obtained, we can say that at the moment there is a need for the development of a new veterinary extemporal drug in the form of a gel for the local treatment of atopic dermatitis in dogs.

## **THE RELEVANCE OF THE DEVELOPMENT OF ANTISEPTIC SOLUTION FOR EAR TREATMENT IN DOGS**

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**Introduction.** According to statistics, ear diseases in dogs account for up to 20% of all diseases that occur in veterinary practice. Ear disease in dogs is a common problem. This is due to the physiological features of the structure of the ear. Violation of air circulation in the ear canal, inflammation, hypothermia or other provoking factors cause excessive production of sulfur,

moreover, its consistency changes - it becomes more liquid. Discharge, which is normally removed from the ears, begins to accumulate and irritate the lining of the ear canal. One of the most common pathologies is inflammation of the external auditory canal, which can be caused by bacterial or fungal infections, mechanical damage to the external ear, allergies and other factors. For the symptomatic treatment of such inflammations, antiseptic solutions are used for washing, which, due to their properties, can accelerate wound healing, relieve inflammation, itching and anesthetize the affected area of the animal's ear.

**Aim.** To develop a composition of an antiseptic solution for use in veterinary medicine with a wide spectrum of action.

**Materials and methods.** In the framework of the work carried out, materials of articles from scientific journals, irregular publications, as well as educational literature were used.

**Results and discussion.** As symptomatic therapy, veterinarians prescribe local treatment of the auricles. Therefore, the antiseptic solution must have a complex effect. We used herbal extracts as active components of antiseptic solution for washing ears in dogs. Aqueous sage extract has anti-inflammatory, antimicrobial and antiseptic effects, calendula tincture, which has wound healing and antiseptic effects, chamomile essential oil, which has anesthetic and reparative effect, and aloe extract with antipruritic and wound healing effects. To relieve pain, lidocaine hydrochloride was additionally introduced, which has a pronounced local anesthetic effect.

**Conclusions.** Based on the above, ear diseases in dogs are a fairly common pathology. The reasons that cause these symptoms are different: fungal and bacterial inflammation, allergies, otitis media, etc. As active components with complex action, we have chosen an aqueous sage extract, calendula tincture, chamomile essential oil. To relieve pain and local instant anesthesia, lidocaine hydrochloride was added.

## ТОКСОПЛАЗМИ – ЗБУДНИКИ ТОКСОПЛАЗМОЗУ ДОМАШНІХ КОТІВ

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**Актуальність.** *Toxoplasma gondii* – це облигатний внутрішньоклітинний паразит, що викликає хворобу – токсоплазмоз. Зараження відбувається при вживанні в їжу погано прожареного м'яса, що містить паразитів, при контакті з виділеннями тварин і від матері до дитини. Токсоплазма може вражати різні тканини організму. У здорових людей інфекція в основному перебігає безсимптомно. Можуть виникати лімфаденопатія і хоріоретиніт. У рідкісних випадках виникає міокардит, поліміозит, запалення легенів, гепатит або енцефаліт. Хвороба може стати небезпечною для життя в разі наявного імунодефіциту. Первинно придбаний токсоплазмоз при вагітності може заражати плід і сприяти аборту, смерті плоду або вродженому токсоплазмозу. У новонароджених може виникати гідроцефалія, мікроенцефалія, інтракраніальні кальцифікати, хоріоретиніт, сліпота, епілепсія, психомоторне або ментальне порушення розвитку. Тому можна вважати актуальним питання біології токсоплазм та вивчення їх впливу на організм домашніх котів, які є частими переносниками токсоплазмозу.

**Мета роботи.** Проаналізувати дію *Toxoplasma gondii* – збудника токсоплазмозу – на організм домашніх котів.