of picloxydine dihydrochloride, the validation characteristic was studied – linearity for the given method, which is observed in the concentration range of the active substance from 20 mg/ml to 30 mg/ml, the systematic error (0,24≤0.40%) and precision were also calculated (1.2057≤maxΔas,%=1.60), the data of which confirmed the correctness of the method.

Conclusions. The method is characterized by linearity, accuracy and precision and can be used to quantify picloxydine dihydrochloride in a dosage form. The results obtained indicate that the dosage forms have been prepared satisfactorily, and the proposed method can be used to assess the quality of the substance and the eye drops with picloxydine dihydrochloride.

DETERMINATION OF POTASSIUM HYDROGEN PEROXOMONOSULPHATE IN DISINFECTANT BY VOLTAMMETRY

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Introduction. Disinfectant “HYGISEPT" (Farmos Oy, Finland), the active ingredient of which is potassium hydrogen peroxomonosulfate ($KHSO_5$), has bactericidal (sporocidal), virucidal and fungicidal activity. It is widely used in medicine, economics and veterinary medicine as a disinfectant, sterilizer and antiseptic agent.

Aim. The aim of the study was to elucidate the possibility of quantification of potassium hydrogen peroxomonosulfate in the “HYGISEPT” by cathode voltammetry using a rotating carbocital electrode.

Materials and methods. In the experimental work, voltammetric measurements were performed on an AVS–1.1 analyzer (Volta, St. Petersburg) according to the three-electrode scheme in alternating current mode with square-wave modulation of potential in the range +1.0… –1.2 V, W = 1000 rotation/min, amplitude 40 mV, ν = 65 Hz. A carbositall electrode was used as the working and auxiliary one. An electrode of Ag, AgCl/saturated KCl type EVL-1M4 was used as reference one; background was 0.2 mol/L solution of $KHSO_4$ (pH ≈ 2).

Results and discussion. It is shown that the reduction of potassium hydrogen peroxomonosulfate on the indicator electrode (E_p = +0.25V) occurs according to the equation:

$$HSO_5^- + 2e + 2\,H^+ = HSO_4^- + H_2O.$$

The diffusion current increases in proportion to the depolarizer concentration. Sodium dodecylbenzene sulfonate, which is a part of the tested agent, was found to have a catalytic effect (current increases). It was decided to use the method of potassium hydrogen peroxomonosulfate additives during drug analysis. When determining (1.5–9.24)□10^{-5}mol/L potassium hydrogen peroxomonosulfate RSD≤0.02 (n = 5; P = 0.95%), δ = –0.3% (relative to the average reference method of iodometric titration).

Conclusions. Therefore, a new voltammetric technique was developed and the possibility of quantitative determination of potassium hydrogen peroxomonosulfate to disinfectant "HYGISEPT" using a carbositall electrode as an indicator was shown.

A STUDY OF BENZOCAINE QUANTITATIVE CONTENT IN RECTAL SUPPOSITORIES OF DIPHILLIC TYPE USING UV SPECTROSCOPY

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Introduction. The stage of research of the quantitative content of active substances is an integral factor in the pharmaceutical development of new medicines. These studies are especially important for rectal dosage forms, as the rate of onset of the pharmacological effect directly depends on the completeness of the distribution and the amount of active substances in the dosage form.

Aim. The aim of the study was to investigate the quantitative content of benzocaine in the composition of rectal suppositories of the diphillic type.

Materials and methods. Rectal suppositories of diphillic type weighing 4.0 were used as the object of the study. The benzocaine content was 0.1 per suppository.

Preparation of the test solution was carried out according to the following method. Approximately 1.0 of the suppository (exact mass) is placed on the bottom of a beaker with a capacity of 100 ml, added 25 ml of 96% ethanol. The beaker with the sample is placed on a water bath (t=40°C) until the sample melts. Base was stirred constantly. After that, the sample was left for 20 minutes to cure. Solution has decanted into a funnel on «white tape paper» filter and collects the filtrate in a 100 ml volumetric flask. The procedure is repeated twice more portions of 25 ml of ethanol. The filter is washed with 96% ethanol, collecting the solution in the same volumetric flask, brings to the mark with the same solvent and stirred. An aliquot of the solution