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

in a volume of 1 ml is placed in a volumetric flask with a capacity of 50 ml, adjusted to the mark with 96% ethanol and mixed.

Preparation of the comparison solution was carried out according to the following method. Approximately 0.0500 of standard sample (exact mass) of benzocaine placed in a volumetric flask with a capacity of 100 ml, added 70 ml of 96% ethanol and stirred until dissolved. The solution was adjusted to the mark with ethanol and stirred. An aliquot of the solution in a volume of 1 ml is placed in a volumetric flask with a capacity of 100 ml, adjusted to the mark with 96% ethanol and mixed.

The optical density of the test solution and the comparison solution measured on a spectrophotometer at a maximum at 294 nm in cuvettes with a layer thickness of 10 mm. As a control solution used 96% ethanol.

Results and discussion. According to the developed method, the quantitative content of benzocaine in suppositories was quantified. The results obtained are presented in the table.

Table

The results of the quantitative content of benzocaine in the composition of suppositories

№	Mass of samples, g	Optical density, A	The content of benzocaine (X) g / supp	X average, g / supp
1	1,0056	0,624	0,097	0,09917
2	0,9986	0,634	0,099	
3	0,9887	0,646	0,102	
4	1,0038	0,643	0,100	
5	1,0009	0,629	0,098	
6	0,9994	0,634	0,099	

Note: A_c =0,641; m_c – 0,0500 g; $m_{average}$ – 4,000 g.

Conclusions. Analysis of the data in table shows that the results determination by the developed spectrophotometric method, the average quantitative content of benzocaine in the samples of suppositories is 0.09917 ± 0.000738 g / soup. Relative the uncertainty of a separate definition according to the developed method is 1.823%.