The aim of this work was to study the effect of new vaginal gels on the functional state of the central nervous system of spay female rats.

Materials and methods. The research has been carried out on 42 non-linear white female rats. The experimental animals have been kept in standard vivarium conditions of Central Research Laboratory of the National University of Pharmacy.

The condition of estrogen deficiency in female rats was caused by bilateral spay. The animals have been divided into the following groups: 1 - intact control; 2 - sham-operated females; 3 - control pathology - spay animals; 4 - spay rats treated with gel containing 5% of glucosamine hydrochloride (GH) at a dose of 22.7 mg/kg; 5 - spay rats treated with gel containing hop extract and ascorbic acid (HE + AA) at a dose of 00.6 mg/kg; 6 - spay rats treated with gel containing hop extract and lactic acid (HE + LA) at a dose of 0.06 mg / kg; 7 - spay rats which received a comparative drug - "Ovestin" vaginal suppositories (active substance – estriol), produced by Organon Company, the Netherlands, series G44874 at a dose of 0.03 mg / kg (E). 6 animals have been taken out of each group.

After five weeks post operation (from the 35th day of the experiment), females were administered by vaginal gels of different composition and comparative drug 1 time per day during 28 days.

After termination of course of treatment with new vaginal gels, the state of the central nervous system was assessed using “an open field” test.

Results and discussion. In the study of locomotor, orienting-research activity and emotional state of spay female rats, a sharp decrease in their orienting-research activity (a decrease in the number of viewings in holes, vertical postures) was established. At the same time, there was an increase in the level of anxiety, which was accompanied by an increase in acts of defecation and urination.

All the studied parameters were normalized, which practically reached the level of intact animals after treatment with the drug for menopausal replacement therapy - suppositories with estriol.

With regard to the effect on behavioral and emotional reactions in spay female rats, the vaginal gel with GH was almost indistinguishable from the comparative drug, except for a less pronounced "hole exploratory behaviour" and an increase in the number of fecal boluses that accompany emotional expressions in animals.

Against the background of normalization of the horizontal and vertical motor activity of the female rats, the course administration of the gel with HE + AA did not reduce the manifestations of the vegetative reaction in the form of urinations and defecations.

After the course administration of the gel with HE + LA, the indicators of horizontal, vertical and orienting-research activity were completely normalized. Manifestations of anxiety decreased, as indicated by the compliance of the number of fecal boluses, urination and episodes with grooming-intact control.

Conclusions. Thus, the greatest pharmacological activity was inherent in the vaginal gel with hop phytoestrogens and lactic acid, it contributed to the elimination of behavioral disorders and manifestations of anxiety at the level of the comparative drug - suppositories with E.

THE STUDY OF HEPATOPROTECTIVE ACTIVITY OF DRY EXTRACT OF GINGER ON A MODEL OF EXPERIMENTAL HEPATITIS IN RATS

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Introduction. Ginger - Zingiber officinale - one of the most popular spices in the world, which is widely used in folk medicine. The main components of ginger - gingeroles and shogaols provide its pharmacological properties. The research conducted at National University of Pharmacy has established that dry extract of ginger medicinal (Ginger) has expressed antidiabetic activity. This allows to assume its hepatoprotective properties.

The **aim** of the work was to investigate the hepatoprotective effect of Ginger on the model of acute hepatitis in rats.

Materials and methods. Acute toxic two-day hepatitis was reproduced by intragastric administration of 50% oil solution of carbon tetrachloride at a dose of 0.4 ml/100 g of body weight. Ginger aqueous solution at a dose of 80 mg/kg and referent agents metformin at a dose of 60 mg/kg and the collection Arfazetin at a dose of 16 ml/kg were administered intragastrically 7 days prior to the introduction of carbon tetrachloride, and then along with the model of acute hepatitis.

Results and discussion. The injury of the liver was characterized by a significant imbalance in the lipid peroxidation/antioxidant system, depletion of recovered glutathione and glycogen in the liver and expressed cytolysis of hepatocytes. Preventive-therapeutic regimen of Ginger administration eliminated toxic manifestations of carbon tetrachloride. Hyperenzymemia decreased statistically significant and content of TBC-reactants under the influence of Ginger. The level of reduced glutathione and glycogen in the liver homogenates statistically significant normalized to the level of intact animals. Under the action of metformin and Arfazetin, partial non-significant recovery of the studied blood and liver homogenates was observed. The content of TBC-reagents and reduced glutathione was fully normalized only in rats receiving Arfazetin, while metformin showed only a positive tendency to lowering of TBC-reagents.

Conclusions. Thus, the expressed hepatoprotective properties of IMB are established on the model of acute carbon tetrachloride hepatitis. Ginger predominated over reference agents metformin and Arfazetin in the ability to normalize indices of lipid peroxidation/antioxidant system, activity of liver aminotransferase and content of glycogen.

THE NEGATIVE EFFECT OF HEADPHONES ON THE HEARING OF YOUNG PEOPLE

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Introduction. Full or partial hearing loss is one of the most common chronic diseases in the world. In the United States, hearing loss is one of the most widespread among chronic diseases. Hearing loss is cause not only by trauma, inflammation, infection, but also the prolonged effect of loud sound or vibration. Today, headphones are an integral part of the majority of our planet's population and are especially popular among young people. In this regard, hearing suffers a constant stress, which may lead not only to the deterioration function of the hearing, but also to pathological changes. Therefore, the study of the effect of headphones on young people's hearing is actual.

The **aim** of our work was to study the effect of headphones and identify their possible side effect on students' hearing, as well as offer recommendations for their further exploitation.

Materials and methods. At the first stage of the survey was to conduct a questionnaire among students of the NUPh 1-2 course, who have been used headphones for more than a year. Further, 10 students were selected on the basis of the data of the questionnaire, who had complaints of hearing impairment due to the prolonged use of headphones. The condition of hearing functioning was carried out on students at the Kharkiv State Student Hospital. The study of hearing acuity was carried out using the methods of speech and tonal audiometry (instrument - Audiometer MA 31). According to the results of the study, we plotted a graph-audiometry, which indicated on a frequency range in which the student heard well.

Results and discussion. According to the results of the survey, it was found out that the majority of respondents (88 %) uses vacuum headphones (plug-ins) and listens to music for more than 2-3 hours per day for many years. At the same time, 10% of them complained about bad hearing, discomfort and decrease of concentration and attention, which arises immediately after using headphones.

The next step in our study was to explore the audiogram of the students in order to identify possible pathology. When we carried out a detail collection of anamnesis, we saw that this group of students listens to music with headphones at a maximum volume more than 3 hours per day for 18 ±3 months. Using audiometry method we found out that only 2 patients had hearing loss. At the same time, the scale of audiograms fell below 25 dB (normal hearing frequency) - there was a bone-air interval, i.e. they had pathology of hearing. In addition it was discovered , that these patients had been using vacuum headphones for more than 6 hours a day at a maximum volume for more than 2 years.

Conclusion. Based on the obtained data, we can predict possible audiogram changes of students