provide intravenous fluids to patients with cardiovascular instability. Electrolytes are injected bolus 20 ml / kg (5-10 ml / kg in the first 5-10 minutes – an adult; 10 ml / kg – a child). Inhaled short-acting  $\beta 2$ -agonists salbutamol (2 breaths 1-2 times), fenoterol (1 breath 1 time) can be additionally administered to relieve the symptoms of bronchospasm. Antihistamines may be recommended for a patient with anaphylaxis with stable hemodynamics. It is preferable to use blockers of H1-histamine receptors of the second generation – loratadine, cetirizine, fexofenadine. Glucocorticosteroids (GCS) are widely used in anaphylaxis to prevent prolonged symptoms of anaphylaxis, especially in patients with concomitant asthma, as well as with a biphasic reaction. Parenteral corticosteroids may be prescribed immediately after the use of epinephrine and antihistamines.

**Conclusions.** Thus, according to modern protocols for the pharmacotherapy of anaphylactic shock, the use of epinephrine, electrolyte solutions, antihistamines and corticosteroids is recommended.

## IN VIVO STUDY OF ANTICONVULSANT ACTIVITY AND RELATED PSYCHOTROPIC PROPERTIES OF 5-[(Z)-(4-NITROBENZYLIDENE)]-2-(THIAZOL-2-YLIMINO)-4-THIAZOLIDINONE

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**Introduction.** The problem of epilepsy treatment is one of pressing issue in modern neurology and psychopharmacology. The prevalence of epilepsy reaches 1% of worldwide population but 1/3 of patients do not achieve control of seizures. Thiazolidinone derivatives are promising for the creation of compounds with neurotropic properties, including anticonvulsants.

**The aim.** To identify a leader compound among thiazolidinone derivatives, to study its anticonvulsant activity and related psychotropic properties.

Materials and methods. Objects of study: 31 new thiazolidinone derivatives synthesized under the guidance of prof. R. B. Lesyk at Danylo Halytsky Lviv National Medical University. Albino mice were used, that were kept according to conditions of the Europian Directive for experimental animals. For screening two basic seizure models with different mechanism were selected: pentylenetetrazole (PTZ) and maximal electroshock (MES) test. The neurotransmitter activity profile of test compound was determined in seizure models induced by thiosemicarbazide, strychnine, picrotoxin, camphor and caffeine. Related psychotropic properties were studied in an open field test, elevated plus maze, tail suspension test, passive avoidance test and swimming test with a load of 10% by weight of the animal.

**Results and discussions.** At the first stage of screening, the leader compound 5-[(Z)-(4-nitrobenzylidene)]-2-(thiazol-2-ylimino)-4-thiazolidinone was determined from 31 synthesized derivatives. The effectiveness of the compound in PTZ and MES indicates a stimulating effect on GABA-ergic receptors and blockade of Na<sup>+</sup>-channels. At the second stage of study the compound 5-[(Z)-(4-nitrobenzylidene)]-2- (thiazol-2-ylimino)-4 thiazolidinone was found to be highly effective in picrotoxin and caffeine seizure models. This indicates an active counteraction to the blockade of the chloride channel of the GABA<sub>A</sub>-complex by picrotoxin and the strengthening of adenosynergic mechanisms with the intensification of inhibitory processes in the CNS. An in-depth study of the psychotropic properties of 5-[(Z)-(4-nitrobenzylidene)]-2-(thiazol-2-ylimino)-4 thiazolidinone has shown no effect on behavioral and emotional reactions, muscle tone and

coordination. A pronounced actoprotective effect of the compound has been established, according to which it is not inferior to the psychostimulant caffeine.

**Conclusions.** Thus, the results of the research sufficiently substantiate the expediency of further study of 5-[(Z)-(4-nitrobenzylidene)]-2-(thiazol-2-ylimino)-4 thiazolidinone as a promising anticonvulsant.

## CHANGE OF MORPHOMETRIC PARAMETERS OF THE LYMPHOID TISSUE OF THE SMALL INTESTINE ON IN POLYPHARMACY WITH ANTI-INFLAMMATORY AGENTS

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**Introduction.** Immunocompetent cells of the lymphoid nodules of the squishy squid, in contrast to other organs of immunity, are distinguished by the highest, ten times greater, ability to migrate. Thus, the grouped lymphoid nodules are an important tool for the dialogue of the macroorganism with the antigens of microorganisms and food components. Anti-inflammatory polypharmacy is a global problem around the world. To date, the study of the effect of drugs on the lymphoid structure of the small intestine is relevant.

**Aim.** The aim of our study is to study polypharmacy with anti-inflammatory drugs on the structural and cellular structure of the lymphoid tissue of the small intestine of white rats.

Materials and methods. Sexually mature white outbred rats weighing 200-250g, 4-5 months of age were used in the work. The experiment was carried out on 40 animals kept in the general regime of the vivarium. For 10 days, the animals were injected enterally through a tube into the stomach with anti-inflammatory drugs at the rate of Plaquenil 6.5 mg/kg, paracetamol 15 mg/kg, aspirin 5 mg/kg, dexamethasone 0.1 mg/kg. All laboratory animals were divided into 4 groups: group 1 - control animals (15 rats) receiving distilled water through a tube, group 2(15 rats) - laboratory animals that received 2 types of anti-inflammatory drugs (plaquenil, dexamethasone); Group 3 (15 rats) - laboratory animals that received 3 types of anti-inflammatory drugs (plaquenil, dexamethasone, paracetamol); Group 4(15 rats) - laboratory animals that received 4 types of anti-inflammatory drugs (plaquenil, dexamethasone, paracetamol, aspirin). The material was collected on day 11, after 10 days of drug administration.

Results and discussions. In the middle part of the small intestine, the number of single lymph nodules per 1 sm2 of area fluctuates on average - 17.12±0.63. In the distal part of the small intestine, the number of single lymph nodules increases on average 19.22±1.74. Single lymph nodules in the second group of animals of the middle section of the mesenteric part of the small intestine are on average 11.13±0.79. In the distal part of the mesenteric part of the small intestine, the number of lymph nodules per 1 sm2 of area decreases on average - 14.03±0.55, in the third group of animals, in the middle part of the mesenteric part of the small intestine, single lymph nodules on average 10.32±0.63, and in the distal part of the mesenteric part of the small intestine the number of lymph nodules per 1 sm2 of the area is on average 12.63±0.21, in the fourth group of animals in the middle part of the small intestine there are single lymph nodes 7.22±0.42, and in the distal part per 1 sm2 of area on average - 8.18±0.32. In the control group, 35-38 lymphoid nodules were found in the composition of the lymphoid plaque. The number of lymphoid nodules in the plaque in the second group of animals of the ileum of the small intestine is on average 26.33±0.29.