Studying the Impact of Vigitril on the Threshold of Patient Sensitivity in Rats

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Background. Bismuth preparations (primarily bismuth titrate dicitrate) can be used as the main component of the eradication anti-Helicobacter pylori regimen as the second (and in some cases the first) line, as a monotherapy in the treatment of acute infectious diarrhea (particularly traveler's diarrhea), as well as some chronic diseases of the intestine (postinfective IBS, lymphocytic and collagen colitis). Short (4-8 weeks) courses of therapy with bismuth preparations are well tolerated, safe and do not cause serious side effects.

To date, the increasing demands on the quality of drugs, lead to the need to study the pharmacological significance of the threshold painfulness when using the coordination compound bismuth (III) with histidine called "Vigitril" in experimental animals.

Methods of research. Experiments were carried out on 24 rats, weighing 145-173 grams, of both sexes. In these animals, the threshold of pain sensitivity was previously determined by mechanical stimulation of the tail in rats. Then the animals were divided into 3 groups of 8 pieces: 1-group, intact, which introduced distilled water in the appropriate volume; 2-group, experimental, who received the study drug at a dose of 25 mg / kg 45 minutes before the start of the experiment. Group 3 under similar conditions received de-nol at a dose of 25 mg / kg. After the drug was administered, the animal was monitored for 5 hours. At the same time, the pain sensitivity threshold was measured every 60 minutes. The degree of analgesic effect was assessed by the difference in the initial pressure carried by the animals prior to the administration of the test preparation and the mechanical pressure carried by the rats at the height of the analgesia. The degree of mechanical pressure was conventionally denoted in centimeters [1, 2].

Results. It was found that the threshold of pain sensitivity in intact animals was kept the same as before the introduction of distilled water. After 45 minutes under the influence of vigitril at a dose of 25 mg / kg the threshold of pain sensitivity to the control group clearly increases by 33%. The analgesic effect of the drug lasted more than 2 hours. Under similar conditions, the threshold of pain sensitivity after the administration of De-nol at a dose of 25 mg / kg rises from the baseline by 33.5% and lasts for 2.5 hours. Conclusion: the studied preparation of vigitril has a noticeable analgesic effect. Vigitril on the analgesic effect is not inferior to the pain-killing effect of De-nol.

References.