

Influence Of Lesbochol Dry Extract On The Current Of Experimental Nervo-Reflective Gastric Ultra

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Annotation. *It was proved that the studied new phytopreparation Lesbachol under experimental conditions exhibits a pronounced protective effect on the gastric mucosa. And so, under the influence of lesbachol, the area of ulceration decreases by 58.5%, and in the group of the studied drug to glycerol - by 32.7%. The results showed that lesbokhol with small punctate ulcers compared with the control group was reduced 2.6 times, with large ulcers it was reduced 2.8 times, with striped ulcers 2.6 times, the total number of ulcers decreased 2.6 times ... Therefore, Lesbokhol, as a potential highly effective anti-ulcer agent, is of practical interest and can be recommended for the prevention and treatment of gastric ulcer and duodenal ulcer.*

Key words. *Area, result, effect, gastrict.*

1. INTRODUCTION

Gastropathies, gastric ulcer and duodenal ulcer (PUD), hyperacid and stress gastritis are widespread among the working-age population of the entire globe, which explains the great medical and social significance of the problem (4). The urgency of the problem lies in the fact that, despite the use of effective methods of treating PAD, the occurrence of relapses is noted in 60-100% of cases. Basic pharmacotherapy of gastropathies includes the following groups of drugs: histamine and proton pump receptor blockers, antacids, anti-Helicobacter drugs, gastroprotectors (3,4)

Due to the fact that the pharmacotherapy of PAD presents considerable difficulties, the search for drugs that are more advanced in terms of the mechanism of action and clinical results can be fruitful only taking into account the accumulated information about the pathogenetic mechanisms of the disease, as well as the long-term experience of using drugs in the clinic. The ideal solution is the creation of drugs with systemic and local gastroprotective action, as well as an increase in the resistance of the mucous membrane of the stomach (gastric mucosa) and duodenal mucosa (SODC) can be achieved by activating the antioxidant system, normalizing the psychosomatic component, and sufficient supply of the body with nutrient factors (5,6). Also, in medical practice, a new direction has emerged in the treatment of ulcerative erosive lesions of the gastrointestinal tract with natural (flavonoids, fecal compounds) and synthetic (probutol, etc.) antioxidants, which is due to their positive effect on oxidative stress (4, 6). Currently, practical health care has a significant arsenal of antiulcer drugs belonging to various classes of chemical compounds.

However, they do not fully meet the requirements of clinicians. Some drugs have insufficient therapeutic effect (4, 6, 7,8, 9)

The use of others is associated with a high relapse rate, almost all drugs cause side effects, and sometimes severe complications occur in some patients (2)

In connection with the above, there is an urgent need to search, study and introduce into the clinic new highly effective and low toxic antiulcer drugs.

An increasing number of antiulcer drugs are offered for use in the clinic, but the fact remains that a perfect drug has not yet been created. And, apparently, it is impossible to imagine that such a tool will ever be invented.

Therefore, an active search for new highly effective and low-toxic drugs continues (3, 4, 5, 7).

2. PURPOSE OF THE STUDY

Study and evaluation of the effectiveness of the prescribed dry extract of the conditionally named dry extract "Lesbohol", isolated from medicinal plants of local flora, in experimental stomach ulcer of rats caused by stress.

3. MATERIAL AND RESEARCH METHODS

All experiments with animals were performed in accordance with ethical principles and regulations.

All experimental work was carried out according to the "Guidelines for the experimental (preclinical) study of new pharmacological substances (Edited by R. U. Khabriev, 2005) (10). The new domestic preparation "lesbohol" contains 4 types of medicinal plants of the flora of Uzbekistan: *Hypericum perforatum*, *Ziziphora pedicellata* Pazij et Vved., *Mediasia macrophylla* Regel et Schmalh. and *Glycyrrhiza glabra* L.

For the experiment, rats are selected, which are divided into 3 groups of 6 pieces with a body weight of 160-240g. Before the experiments, the animals were quarantined for 14 days, kept in a vivarium on a standard diet. The experiments were performed according to the requirements of the ethical committee. The method of stress immobilization causes ulcers in the stomach of rats according to the method of S.V. Anichkova, E.V. Moreva and I.S. Factory (1). The first group is considered the control group, the second group is considered the experimental group, the third group is considered the comparative group. All three groups are left hungry for 24 hours and the rats of the first group are given distilled water, the rats of the second experimental group, according to their body weight, are injected with 50 mg / kg dry extract of Lesbohol, and the rats of the third group, respectively, are given 75 mg / kg of glycyram. Since fasting due to the activation of anaerobic glycolysis helps to reduce the level of protective factors of the gastric mucosa. Within 24 hours, the front and back legs of the rats are tied to a special board.

After the termination of immobilization, the animals were sacrificed and their stomachs were subjected to a thorough examination with registration of all detected changes. The results obtained were statistically processed according to Student's criteria.

Depending on the shape of the ulcers, we divided them into 3 groups:

- Small punctate ulcers.

- Large ulcers.

- Striped ulcers.

For comparison, a well-known stimulator of reparative regeneration, glycyram, was taken, exhibiting pronounced antiulcer and ulcer healing effects.

The value of the information is assessed by the following indicators:

The degree of ulceration is the average number of ulcers per animal per group.

$$\text{Pauls index} = \frac{\text{Ulceration rate} \times \text{percentage of animals with ulcers}}{100} \%$$

4. RESEARCH RESULTS IN

the first control group, the total number of ulcers was 61.8 ± 4.14 , of which 35.0 ± 2.9 were small punctate ulcers, 13.3 ± 1.6 large ulcers and 13.5 ± 1.3 striped ulcers. In the second experimental group, the total number of ulcers was 23.5 ± 1.3 and of them 12.3 ± 1.02 were small punctate ulcers, 6.0 ± 0.97 large ulcers and 5.2 ± 1.08 striped ulcers (Table 1).

Table 1
Effect of Lesbohol on experimental stomach ulcers caused by immobilization stress.

Series of experiments	Small punctate ulcers	Large ulcers	Striped ulcers	Total number of ulcers
Immobilization stress	35,0±2,9	13,3±1,6	13,5±1,3	61,8±4,14
Lesbohol	12,3±1,02* ^x	6,0±0,97*	5,2±1,08*	23,5±1,8* ^x
Glycyram	21,5±1,6	7,2±1,03	6,5±1,5	37,2±2,1

Note: the results of the experiment are considered to be delivered at $P < 0.05$: * - to control; x - to glycers. In the third comparative group, the total number of ulcers was 37.2 ± 2.1 , of which 21.5 ± 1.6 were small punctate ulcers, 7.2 ± 1.03 large ulcers and 6.5 ± 1.5 striped ulcers. From this it follows that in the second group, who took lesbohol, compared with the first control group, decreased by 62%, and compared with the third group, decreased by 39.8%. The results show that lesbohol with small punctate ulcers compared with the control group was reduced by 2.6 times, with large ulcers it was reduced by 2.8 times, with striped ulcers by 2.6 times, the total number of ulcers decreased by 2.6 times. Therefore, used for the prevention of gastric ulcer, the drug Lesbohol in a study in the experimental group showed that when controlled lesbohol reduced the number of ulcers by 62% compared to glyceram Lesbohol reduced the number of ulcers by 37%.

A drug	Dose in mg / kg	Number of rats with ulcers		Ulceration area in mm	Reduction of the area of ulceration compared to control in %	Pauls index	Decrease in the degree of ulceration compared to control in %	Ulceration degree
		To the absolute digits pah	V %					
Control	Dist. water	6	100	30,6±2,02	100	61,8	100	61,8±4,14
Lesbohol	50	6	70	12,7±1,2 ^{*x}	58,5	16,5	61,9	23,5±1,8 ^{*x}
Glycers	75	6	80	18,6±1,5	39,2	29,8	39,8	37,2±2,1

Table 2

Note: the results of the experiment are considered to be delivered at $P < 0.05$: * - to control; x - to glycers. The results of the experiments showed in the first control group the area of ulceration was $30.6 \pm 2.02 \text{ mm}^2$. In the second experimental group it was $12.7 \pm 1.2 \text{ mm}^2$, and in the third comparative group - $20.6 \pm 1.6 \text{ mm}^2$. From this it follows that in the group taking lesbohol, the area of ulceration decreased by 58.5%. And in the comparative group it decreased by 32.7%. In the group studied with the drug Lesbohol, the area of ulcers decreased 2.4 times. And in the group of investigated the drug to glycerols 1.6 times. (Table 2). Experience has shown that healing of stress-induced ulcers is 60%. This is due to the content of Ziziphor in the lesbohol, which in turn has a calming effect..

In addition, the composition of Licorice naked contains 24% glycyrrhizic acid, which acts on the regeneration of the gastric mucosa. St.John's wort contains substances that have squeezing, antiseptic and properties that cause rapid healing of ulcer tissue.

5. CONCLUSIONS

1. Lesbochol prevents the formation of stomach ulcers caused by immobilization stress.
2. Experience has proven that healing of stress-induced ulcers is 60%. This is due to the content of Zizifor in lesbohol, which in turn has a calming effect.
4. Based on the above, we can say that the new domestic drug Lesbohol under experimental conditions exhibits a pronounced protective effect on the gastric mucosa.
5. Lesbokhol as a potential highly effective anti-ulcer agent is of practical interest and can be recommended for the prevention and treatment of gastric ulcer and duodenal ulcer.

6. USED LITERATURE

- [1]. Anichkova S.V., Zavodskaya I.S., Moreva E.V. pharmacological analysis of stress mechanisms and its consequences. L.: medicine, 1981. -- 212 p.
- [2]. Baranskaya EK, Ivashkin VT, Sheptulin AA Pariet in the treatment of peptic ulcer disease, symptomatic gastroduodenal ulcers and functional dyspepsia, p. 75-77. / in the book. prevention and treatment of chronic diseases of the upper gastrointestinal tract. / ed. acad. RAMS V.T. Ivashkin. 2nd ed. - m.: Medpress-inform, 2013, 152 pp. Isbn 978-5-98322-905-1.
- [3]. Mamadzhanova M.A., Mustanov T.B., Yakubova L.K. et al. Effect of 2-pento-fluorobutyryl-3-ketomethyl ester of 18-dehydro-glycyrrhetic acid on the development of reflex gastric ulcers in rats / Zhurn. Pharmaceutical Bulletin of Uzbekistan, T.: 2013. - No. 1.-p.39-42.
- [4]. Mirzaakhmedova K. T. The effectiveness of phytin-s and glycyrrhizic acid in experimental hepatitis and gastric ulcer. diss. Doctor of Philosophy (phd), t.: 2018. - 50 p.
- [5]. Kudabaev A.K. Substantiation of antioxidant, choleric and hepatoprotective efficacy of yarrow in phosphorus intoxication (experimental study). dis .. kand.med.nauk.-almaty: mai 2000.-p.30.
- [6]. Clinic, diagnosis and treatment of diseases of the digestive system in children. Toolkit. ed. L.F. Kaznacheeva. - Novosibirsk, 2013. -- 64p.
- [7]. Piper D.W., Stiel D. Nizatidine and acid-pepsin related gastrointestinal disease // j.gastroenterol.hepatol. 2013.-vol. 10-n 2.-f.205-207
- [8]. Prewett EJ, Hudson M., Nwokoloc U. Nocturnal intra-gastric acidity during and after a period of dosing with either ranitidine or omeprazole // gastroenterology.-2014.-vol.-100, - n 9.-p.873 -877.
- [9]. Recommendations of the Russian gastroenterological association for the diagnosis and treatment of helicobacter pylori infection in adults Russian journal. gastroenterol., hepatol., coloproctol. - 2012. - No. 1. - p.87-89.
- [10]. Guidelines for experimental (preclinical) study of new pharmacological substances / ed. R. U. Khabrieva. - M., 2005. -- 832 p.

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