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Anti- Folding Drugs Stomach Changes In the Morphometric Parameters of the Wall Floor

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Abstract: Changes in the morphometric parameters of the gastric mucosa under the influence of anti-inflammatory drugs were studied. It was found that, along with morphological changes in the tissue structure of the gastric mucosa under the influence of anti-inflammatory drugs, its morphometric parameters also changed significantly. Long-term administration of anti-inflammatory drugs leads to atrophic processes in the gastric mucosa, thinning of glandular tissue, changes in the capillary network, and a decrease in the thickness of the epithelial layer. The observed changes in morphometric parameters confirm the adverse effect of these drugs on the mucosa.

Keywords: stomach, stomach wall, mucous membrane, polypragmasia, inflammation, morphometry, gland.

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The stomach wall is one of the most important organs of the human body, and its histological and morphological state determines the general state of health. The stomach wall consists of layers: epithelium, subepithelium, glands and vascular tissues, each of which performs its own specific function. Anti-inflammatory drugs, such as omeprazole, misoprostol, sufalcon, etc., are used to reduce inflammatory processes and restore the mucosa by acting on the stomach wall. The effect of these drugs can lead to changes in the morphometric parameters of the stomach wall layers.

Morphometry of the stomach wall is the process of measuring and analyzing the tissue structure of the organ, which is important in assessing the functional state of the organ. Morphometric parameters, such as the thickness of the epithelial layer, the number of glands and the degree of vascularization, are used to

determine changes in the stomach wall. Changes in these parameters under the influence of anti-inflammatory drugs indicate the recovery process of the stomach wall and its functional state.

Studies conducted by Uzbek and Russian scientists have studied the effect of anti-inflammatory drugs on the gastric wall based on morphometry. For example, Toshmamatov and Dzhumanova (2024) analyzed changes in the morphological and morphometric parameters of the gastric wall under conditions of polypharmacy. Their results indicate the effect of anti-inflammatory drugs on the gastric wall and their role in the recovery process. Such studies are of great importance in understanding the importance of studying the morphometry of the gastric wall and the effect of anti-inflammatory drugs.

The stomach wall is a multi-layered tissue that undergoes morphological and morphometric changes under the influence of inflammatory processes. Anti-inflammatory drugs (e.g., misoprostol, omeprazole, sufalcone, etc.) are used to reduce these changes, restore and protect tissues. Scientists have studied the changes in the morphometric parameters of the stomach wall layers under the influence of these drugs in various animal and human models. **Murakami et al. (2010)** analyzed the effects of misoprostol and sufalcone in animal models. In their studies, a significant increase in the number of glands and vascularization of the stomach wall was observed. These changes indicate the anti-inflammatory effect of the drugs and the effectiveness of their use in restoring the mucosa. **Konturek et al. (1992)** confirmed the protective and regenerative effect of misoprostol on the cells of the gastric wall using morphometry. They found changes in the epithelial layer and basement membrane. **Wallace JL (2008)** reported that the use of NSAIDs causes pathogenic changes in the morphometric composition of the gastric wall, including a decrease in epithelial cells, impaired vascularization, and signs of inflammation. These results are important for the development of new protective drugs. **Bjarnason I et al. (1993)** Microscopic changes in capillaries and lymphoid tissue in the gastric wall were noted under the influence of NSAIDs. **Robert A. (1979)** showed the importance of prostaglandin E2 analogues, misoprostol, in the regeneration of gastric epithelial cells and mucosal protection. Morphometrically, thickening of the layer and regeneration of glands were noted. **Kobayashi T et al. (2003)** Studies showing the antioxidant and anti-inflammatory effects of sufalcone revealed morphometric changes in the layers of the gastric wall **Fock KM et al. (2004)** In humans, no significant changes in the morphometry of the gastric wall layers were observed under the influence of anti-inflammatory drugs, but improvements in function and microcirculation were noted. **Naito Y et al. (2005)** studied the effects of omeprazole and cimetidine on the human gastric wall. There were no significant changes in morphometric parameters, but functional recovery was observed .

From the information provided polypharmacy and his/her stomach digestion to the system effect studies about according to done works enough not. Available there are known inconsistencies among the data, for which further morphological and morphometric investigations are required requires that it be transferred. Materials and methods: A total of 150 white rats were involved in the experiment. All rats vivarium under the circumstances normal room at temperature, natural in the light and in ventilated, individual cages In the initial stages of the scientific experiments , all sexually mature rats were quarantined for seven days, somatic or infectious diseases denial since done then vivarium to normal mode was held. Animals experience in groups the following anti-inflammatory drugs were used to study the effect of polypharmacy. (table 1).

Table 1 Control and experimental white male rats were given medicine of the means daily quantity distribution

A group of rats	Experience character	Experienced rats										Total number of rats
		1 day	2 day	3 day	4 day	5 day	6 day	7 day	8 day	9 day	10 day	
I	Control 0.5 ml dis- fresh water	+	+	+	+	+	+	+	+	+	+	20
II	Paracetamol 3.0 mg / kg	++	++	++	++	++	++	++	++	++	++	40
	Aspirin 1.0 mg / kg	+	+	+	+	+	+	+	+	+	+	
III	Paracetamol 3.0 mg / kg,	++	++	++	++	++	++	++	++	++	++	40
	Aspirin 1.0 mg / kg	+	+	+	+	+	+	+	+	+	+	
	Ibuprofen 1.2 mg / kg	++	++	++	++	++	++	++	++	++	++	
IV	Paracetamol 3.0 mg / kg	++	++	++	++	++	++	++	++	++	++	40
	Aspirin 1.0 mg / kg	+	+	+	+	+	+	+	+	+	+	
	Ibuprofen 1.2 mg / kg	++	++	++	++	++	++	++	++	++	++	
	Dexamethasone 0.02 mg/ kg	+	+	+	+	+	+	+	+	+	+	
V	Paracetamol 3.0 mg / kg	++	++	++	++	++	++	++	++	++	++	40

Research results.

Body composition of non-specific non-specific anti-inflammatory drugs (NSAID) in 4-month-old rats weight Group I that is under control animals with In comparison, no significant changes were observed in the experimental rats of group II. Group III decreased by 3.85%, group IV by 6.13%, and group V by 9.5% (Fig. 1). Experience of animals stomach slime floor, submucous base and the greater and lesser curvatures of the stomach were found to be the same, and the best informative indicators were the total thickness of the stomach wall, the thickness of the mucous layer, the thickness of the submucosal base, the height of the fold, the height of the glandular tissue, and the depth of the inter-fold groove. height was determined. Results clarity and it was determined that the degree of their recovery depends on the reception of nonsteroidal anti-inflammatory drugs in laboratory animals. Morphometric of the stomach wall of 5-month-old white rats in the experiment indicators as follows it was: stomach of the wall the total thickness increases from 674.8 μm to 817.5 μm in the cardiac part, with an average of 738.6±15.41 μm; in the pyloric part from 788.9 to 975.1 μm, the average was 832.4±20.11 μm. The thickness of the mucous layer is in the cardiac part 434.3 from micron 512.1 up to microns, average 459.4±8.40 μm; pyloric in part 373.4 μm to 489.2 μm, average 445.4±12.51 μm. Slime under of the base thickness cardiac in part 39.6 from micron 45.79 up to microns, average 41.3±0.66 μm; pyloric in part From 39.1 microns 51.9 up to microns, average 46.8±1.38 per micron equal to The height of the glandular tissue located in the mucous layer is 19.2 in the cardiac part from micron 27.4 up to microns, average 23.4±0.89 μm; pyloric in part From 18.9 μm to 24.1 μm, the average is 20.3±0.56 μm. Rats 5 monthly to age when it arrives cardiac part in the composition 19.2 ± 0.4 yes head cell glands

own inside covers. In this case of the pyloric canal main in the glands cells 21.4 ± 0.7 yes, parietal cells 15.1 ± 0.6 body organizes. According to and neck in the field parietal gland cells in the cardiac part 21.1 ± 0.5, pyloric duct gland cells 16.7 ± 0.5, mucous characterized by the presence of 14.7 ± 0.6 producer glandular cells. Polypragmasia under the influence V group 5 monthly bullet purebred of rats body weight 162 g from 241 g. until, average 218.8±8.22 gna organization did In experience 5 monthly of rats stomach length -34 mm from 35 mm. to, on average 34.32±0.22 mm. The width of the stomach is from 13 mm to 15 mm, on average 13.81±0.22 mmha equal. The organ thickness 12 mm from 13 mm until changing, average 12.43±0.22 mm what organization did. Big of curvature length 36 mm from to 37 mm, average 36.36±0.11 mm. Small of curvature length -13 mm from -14 mm until, average 13.45±0.11 mm organized the During this period, the total thickness of the stomach wall increased from 664.2 µm to 758.1 µm in the cardiac part of the laboratory rats, with an average of 719.8±10.14 µm, and in the pyloric part from 728.4 µm to -856.3 µm, with an average of 786.3±13.81 µm. Conducted morphological and morphometric research visual in a way detected the laws confirmed:The total thickness of the stomach wall, the height of the fold, the mucous layer, the submucosal base, and the height of the glandular tissue of the 4-month-old experimental animals were 12.72% higher in group 5 than in group 1 of the experiment. 8.15% and 18.37%, yes, 4- group experience rats 4.62%,4.55% and 10.19% ha, group 3 animals of experience 3.91%, 2.21% and 4.17% decreased by 10%, and in the 2nd group of experimental rats, the 1st group of experimental animals dimensions with one different being record was done. Conclusion. So. so, taken results that we have shown that, bullet purebred the effect of anti-inflammatory drugs on the elements of the stomach wall was studied experimentally in rats. More than three of the anti-inflammatory drugs type when used, their effect stomach of the wall slime floor, submucous base dimensions noticeable to the extent was found to have decreased.

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