MORPHOLOGICAL CHANGES IN THE GASTRIC LAYERS OF WHITE BREED RATS INDUCED WITH EXPERIMENTAL PULMONARY FIBROSIS

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Relevance: Idiopathic pulmonary fibrosis is a severe progressive disease that leads to death within a few years. The disease mainly develops after the second half of a person's life and affects 90 out of every 10,000 people over the age of 65. The course of interstitial pneumonia is often atypical, develops rapidly, and is accompanied by severe complications such as acute distress syndrome. In viral pneumonia (new coronavirus pneumonia is a type of it), the walls of blood vessels are damaged, endothelial dysfunction develops, capillary wall density decreases, permeability increases. Currently, there are 120,000 patients with IO'F in Europe, and about 40,000 cases are diagnosed every year. 80% of doctors are wrong in diagnosing pulmonary fibrosis. Among the diseases of the respiratory system, the percentage of pulmonary fibrosis is 27.3%. Antifibrotic therapy showed positive results in 9.5% of patients.

The purpose of the study: to study the morphological changes in the stomach of white rats with experimental pulmonary fibrosis.

Materials and methods of research: 150 of both sexes, aged 3-12 months, weighing 200 g, grown in standard vivarium conditions for experimental scientific research. - 500 gr. non-white rats were selected. Laboratory animals were kept in the vivarium of the Bukhara State Medical Institute. Rats were kept in special rooms (room temperature 20-240C, humidity 60%, light 12 hours) according to the requirements for experimental animals.

Conclusion:

Microscopic examination of the stomachs of all rats in the experimental pulmonary fibrosis group revealed hyperfunction of the mucous tubular glands. In this case, a single-layer prismatic epithelium is hypersecretory, serous inflammatory infiltrate, submucosa: hypertrophy of sparse fibrous connective tissue, fullness of blood vessels, infiltration of lymphocytes, hyperplasia of glands located in the private plate: hyperchromic staining of the nucleus, shrinkage of cytoplasm, hypertrophy of muscle fibers in the muscle layer, intermuscular signs such as swelling were observed in the cavity.

References:

1. Beloborodova E.I., sov. Narusheniya vsasyvatelnoy funktsii tonkoy kishki u bolnyx chronicheskoy obstructive boleznyu legkix // Klinicheskaya meditsina – 2012. - №1. - p. 54-61.
2. V. G. Grin Makrotmikroskopicheskie osobennosti relefa slizistoy obolochki zhudochno-inshechnogo trakta belyx krys. Sweet medicine and biology. - Ukraine. - 2019. – No. 4 (70). - c. 188–193.
3. Vinnik Yu. S i saavt. Osobennosti pathogeneza dlitelno nezazhivayushchix ran // Novosti khirurgii. — Russia. - 2011. - T. 19, No. 3. — p. 80-86

4. Guseynov T.S., Guseynova S.T. Morphology of peyerovykh blyashek pri dehydratatsii: monograph. // Makhachkala: issue. building "Nauka plus" - 2010. - p. 76.
5. Guseynova S.T., Guseynov T.S. Anatomiya limfaticheskogo rusla tonkoy kishki pri dehydratatsii - II Astrakhansky meditsinskiy zurnal - Russia. - 2011. - #1. - p. 51-55.
6. Guseynova S.T., Guseynov T.S. Vliyanie dehydratatsii na morfologiyu immunnykh organov // Vestnik Volgogradskogo meditsinskogo universiteta - 2010. - Vyp. 34. - c. 95-98.
7. Guseynova S.T., Guseynov T.S. Vliyanie dehydratatsii na morfologiyu immunnykh organov // Vestnik Volgogradskogo meditsinskogo universiteta - 2010. - Vyp. 34. - c. 74-82
8. Gushchin Ya.A. The influence of fixed solids on the microscopic structure of the organs of laboratory rodents // Mejdunarodnyi vestnik veterinarii. #3. - Moscow. - 2014. - pp. 88-95
9. Dzhitava I.G. i saavt. Morfofunktsionalnye osobennosti yazvennoy disease and patients of the older age group // Vestnik RGMU. - 2010. - #4. - p. 20–24.
10. Feng T, Elson CO. Adaptive immunity in the host-microbiota dialog. Mucosal Immunol. – 2011. – V.4 (1). - p. 15-21.
11. Henderson, NC et al. Fibrosis: from mechanisms to medicines. // Nature. - 2020. - p.587.
12. Henderson, NC et al. Fibrosis: from mechanisms to medicines. // Nature. - 2020. - p. 555-566.
13. Troy L, Glaspole I, Goh N et al. Prevalence and prognosis of unclassifiable interstitial lung disease. Eur Respir J. 2014; 43 (5): 1529–1530.
14. Tzanakis NE, Tsiligianni IG, Siafakas NM Pulmonary involvement and allergic disorders in inflammatory bowel disease. World J. Gastroenterol. 2010; 16 (3): 299–305.
15. Yang L., Fan C., Shu T., Wang S. Punicalin alleviates TNF-α- and IL-1β-induced chondrocyte dysfunction and cartilage metabolism via mediating FOXO3 signaling axis. // J. Food Biochem. 2021, May 11, e13755. doi: 10.1111/jfbc.13755.