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THE STRUCTURE OF THE STOMACH AND ITS CHANGES IN VARIOUS PATHOLOGIES.

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According to the data, among the diseases with the highest mortality rate in the Republic of Uzbekistan, digestive diseases occupy the 4th place. The hot climate of Uzbekistan, the specific characteristics of our people's nutrition, and the deterioration of the ecological situation in some regions are causing an increase in diseases of the gastrointestinal system among the population of our republic. In addition, the increase in the use of various synthetic foods and food additives, the increase in drug treatment, dietary disorders, various infections, bacteria, parasites, and stress factors disrupt digestive function. Assessing the structure and function of the stomach, the central organ of the digestive system, and its changes in various pathologies will greatly help in analyzing the results of future studies.

Keywords
pylorus, corpus, pathology, cirrhosis.

СТРОЕНИЕ ЖЕЛУДКА И ЕГО ИЗМЕНЕНИЯ ПРИ РАЗЛИЧНЫХ ПАТОЛОГИЯХ.

Аннотация

Согласно данным, среди заболеваний с самым высоким уровнем смертности в Республике Узбекистан болезни органов пищеварения занимают 4 место. Жаркий климат Узбекистана, особенности питания нашего народа, ухудшение экологической обстановки в некоторых регионах обусловливают рост заболеваний желудочно-кишечного тракта среди населения нашей республики. Кроме того, рост потребления различных синтетических продуктов питания и пищевых добавок, рост медикаментозного лечения, нарушения питания, различные инфекции, бактерии, паразиты, а также стрессовые факторы нарушают функцию пищеварения. Оценка структуры и функции желудка, центрального органа пищеварительной системы, а также его изменений при различных

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патологиях окажет значительную помощь при анализе результатов будущих исследований.

Ключевые слова

пилорус, тело желудка, патология, цирроз.

In vertebrates, the stomach is an enlarged anterior part of the intestine. However, in roundworms and some fish, the stomach is not specialized, and in most fish it is not clearly separated from the esophagus and intestine. In aquatic and terrestrial animals, the stomach is clearly separated from the other parts of the digestive system. The stomach of birds consists of an independent glandular and muscular compartment. The stomach of mammals is complex, consisting of an entrance and exit compartment, as well as a fundus and body of the stomach. The stomach of most ruminant mammals consists of 4 compartments: the large rumen, the fourth rumen, the third rumen, and the liver. Some whales have 5 and 6 compartments. According to the structure of the glandular layer, the stomach is distinguished as glandular or intestinal (humans, cats, dogs), esophageal (yechidnas, platypuses) and mixed, that is, esophageal-intestinal (horses, pigs). In most mammals, the gastric glands are specialized. In humans, the stomach is located in the abdominal cavity and is bean-shaped. Most of it is located in the left hypochondrium, and a smaller part is in the middle of the upper abdominal cavity. The upper part of the body (fundus) of the stomach is expanded and faces the diaphragm. The outlet from the stomach (pylorus) passes behind the midline of the abdomen to the right. The inlet of the stomach begins with the esophagus, and the outlet part joins the duodenum. A moderately full stomach is in contact with the lower surface of the liver and the diaphragm from above; with the transverse colon and its mesentery from below. The concave edge of the stomach (lesser oblique) faces right and up, the convex edge (greater oblique) faces left and down. To the left of the stomach is the spleen, and below and behind is the pancreas. The stomach is surrounded by the peritoneum on all sides. The capacity of the stomach varies from person to person: in a newborn baby it is 20-30 ml, in middle-aged people it is 1-3 l; the stomach of men is larger than that of women. The stomach wall consists of mucous, submucosal, muscular and serous layers. The stomach is covered with a serous membrane from the outside. The muscular layer under it is made up of longitudinal (external), transverse and oblique fibers. The submucosal layer connects the muscular layer of the stomach to the mucous membrane. This layer is rich in blood vessels and nerves. The inner surface of the stomach is covered with a mucous membrane, under the folds of this membrane there are many glands. The entrance to the stomach (cardia) and the glands at the bottom

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produce mucus, and the pyloric glands produce enzymes. On the border between the stomach and the duodenum there is a pyloric sphincter, which is made up of several layers of circular muscles and ensures periodic emptying of the stomach. As a result of contractions of the smooth muscles of the stomach, tonic peristaltic movements occur in the stomach. Depending on the amount of food that has entered the stomach, tonic contractions are continuous and long. Peristaltic - wave-like movements go from the cardia of the stomach to the pyloric part, these movements mix food and move it into the intestine. An empty stomach remains contracted; Water drunk on an empty stomach passes into the intestines without stopping in the stomach. Food that has entered the stomach from the entrance expands the walls of the stomach and is gradually pushed downwards due to peristalsis. The stomach mixes the food, adapts it for digestion, chemically changes it and transfers it to the intestines (evacuation). Under the influence of hydrochloric acid in gastric juice, a favorable environment is created for the action of enzymes that break down and hydrolyze food. The tubular glands located in the fundus and body of the stomach secrete hydrochloric acid, and the remaining glands secrete pepsin and mucous fluid, the release of which depends on the quality and quantity of food and is controlled by the nervous system and humoral factors. In the first (conditioned reflex) phase, the sight of food, the smell of it entering the nose, eating, and the effect of the receptors of the mouth and throat occur. In the second (neurohumoral) phase, the direct effect of food on the gastric mucosa causes the secretion of juice. In the third (intestinal) phase, the reflex effect arising from the stimulation of the duodenal receptors and the effect of nutrients absorbed from the intestine into the blood lead to the release of gastric juice. Food can stay in the stomach from 3 to 8-10 hours. During this time, the food is completely absorbed by gastric juice and gradually passes into the duodenum. Due to the poor ecological situation and unhealthy lifestyle, gastrointestinal diseases are increasingly common. Gastritis, peptic ulcer disease, and tumors are observed from gastric diseases, and in each disease the stomach undergoes specific morphofunctional changes[1,8]. P. Saranya et al., Department of Biochemistry, University of Madras, India, conducted experiments on gastric ulcers, one of the most common gastric diseases. They determined the gastroprotective efficacy of andrographolide, isolated from Andrographis paniculata, for the treatment of gastric ulcers by conducting experiments on rats. The experiments studied the morphological state of ulcers and stomachs caused by aspirin, ethanol, and pyloric ligation [2].

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