



Morphological Parameters Similarity of the Stomach of a White Non-Pedigreed Rat and a Human

Qosimov U. R., Eshpulatov E. Y.

Abstract: in the scientific literature, information about the anatomy of the stomach of white-breed rats is very rare. The shape, structure and topography of the stomach of rats are significantly different from that of vertebrates, but it is possible to find the same sections in them as in the stomach of sharks. Such a structure of the sections of the White Rat stomach characterizes the sac-like formation of the digestive tract. The front of the abdominal cavity of rats, on the left side of the middle line, is the heart hole in the middle of the line of small curvature of the esophagus and stomach. In the area of small curvature of the stomach, the liver is located and partially covers it. The large curvature of the stomach touches the charvy and blind intestine.

Key words: similarity, parameters, changes, stomach, rats.

The digestive system plays an important role in the body's relationship with the external environment. Various substances that are part of food affect the mucous membrane of the digestive organs. In the process of immunogenesis, it becomes clear that it is no coincidence that the mucous and mucous membranes have a private lymphoid development, on the one hand, while the mucous membrane of the digestive system acts as a barrier that prevents various agents of the outside world from entering the body, on the other hand, it participates in metabolic processes between the external and internal. The stomach of the White Rat is in most cases located under the liver. A large curvature of the stomach protrudes under its sharp caudal edge. It is located on the left side, in the caudal part of the small curvature, on the dorsal and cranial side of the pyloric part of the stomach bottom. The rat's stomach lies almost at a transverse level. The pyloric part of the esophagus and the cranial part of the duodenum join on the right side of the midline ,at an open ventrocaudal angle. Below it (caudal) are the loops of the hungry intestine (ventral rings), the acute angle of the lateral intestine (terminal) and again the blind intestine. In the dorsocaudal (behind) area is the pyloric part, the stomach body, the transverse groin, the body and tail of the pancreas. In the area of great curvature on the left, dorsal side, the stomach bottom and spleen are defined the width of the rat stomach, which has the shape of a hook, gradually decreases along the distal direction. The purpose of the study: to study the similarities between morphological indicators of the stomach of human and white non-breeding rats.

Research methods and techniques: 150 of both sexes grown under standard vivarium conditions for experimental scientific research, age 3-12 months, Weight 200 gr. - 500 gr. rats without a white breed were selected. Laboratory animals were kept in the vivarium of the Bukhara State Medical Institute. Rats were cared for in special rooms according to the requirements for rooms where experimental animals were kept (room temperature 20-240s, humidity 60%, lighting 12 hours). The animals were given enough water and fed with a balanced diet. When preparing and conducting experimental research, it was taken into account that proper care and feeding of laboratory animals is of great importance. Violation of the regime and diet, non-compliance with hygienic measures during feeding leads to a weakening of the animal's body. Increases their susceptibility to various infectious and somatic diseases. The appearance of these diseases during the experiment can lead to a violation of the results of the study and, as a result, to incorrect conclusions. To determine whether or not there



are other diseases and their age, they were subject to a mandatory vet examination. In order to prevent the entry of infectious diseases into the vivarium, the adopted animals were quarantined for 21 days. Laboratory animals were kept in special cages installed on the shelves. The total number of white broodless rats in the cage, the date of the start of the experiment and the last name of the researcher responsible for conducting it are indicated in the experimental animal cage. Results and discussions: when examined microscopically, there are three rows of cells in the esophagus of the gastric mucosa that form a multilayered Keratin epithelium. The basal cells are oval in shape and are of a smaller size compared to the middle and upper floor cells, while the nucleus is located in the center of the cell. The cells in the middle and upper rows are different from the basal row cells, the nuclei are eccentric and most of the cells are on the side. The apical part of the cells contains secretory granules. Cells in the upper row are covered with a cuticle. The anterior part of the stomach, that is, the glandular part, is covered with multi-layered mucosal epithelial cells, the inner mucosa of which is located in 2-3 rows, and this continues to the barrier (edge) separating the anterior part of the stomach from the glandular part, which is evident in the incision. This edge can be seen as a dividing border between the anterior part of the stomach and the glandular part. The mucous membrane of the glandular part of the stomach is extruded from a row of columnar cells, which form gastric mucosa (patches). These honeycombs penetrate to the gastric mucosa and muscle plates. The release holes open into the gastric cavity. When the Fundal part was examined, it was seen that when seeing the area of the mucous membrane, the glands found an externality from the alveolar epithelium and that they consisted of the main cells, parietal cells and secretory pathways that produced mucus. These glands are tubular and poorly branched. They open into the esophageal cuticle between the alveolar epithelium and glands in the primary area. Alveolar epithelial cells are made up of a number of columnar cells, these cells are colored reddish purple in the haemotoxilin eosin.

The main cells are located deeper than the mucous membrane in a rounded shape, the cytoplasm of these glands is colored blue-purple, and the nuclei are located close to the basal menbranch. The function of the main glands is the production of pepsinogen. Parietal cells, on the other hand, are often oval in shape and have 1-2 nuclei located in the center. The cores are round in shape. These cells are located with the lining of the stomach betartib, whose cytoplasm is eosinophilic stained in the haemotoxiline eosine, which enters the red-purple color. Parietal cells develop hydrochloric acid into the gastric cavity. In the cervical part of the gastric mucosa are the cells that produce mucus, which, when stained with hemotoxilin and eosin, stain purple.

Conclusions:

1. Macroscopic and microscopic examination of the stomach of rats revealed age-related changes in them. But in all OES, the stomach took a stomach from 2 sections (without a gland) and consists of a glandular part. Also, the stomach consists of mucous, subcutaneous, muscular and serous layers. The muscular plate of the mucous membrane separates the mucous membrane from the mucous membrane.
2. When the stomach of white-breed bats was studied, it was found that the stomach consists of the anterior part and glandular part, and the glandular part of the stomach is similar in many ways to the human stomach according to its histological structure and the function it performs.

Literature

1. Практическое руководство по ультразвуковой диагностике. Общая ультразвуковая диагностика [Под ред. В.В. Митькова]. М.: Видар; 2006: 720.
2. Николаев А.В. Топографическая анатомия и оперативная хирургия: учебник. М.: ГЭОТАРМедиа; 2007: 784.



3. Жумаева М. М. Диагностика заболеваний щитовидной железы при помощи ультразвукового исследования// Барқарорлик ва Етакчи Тадқикотлар онлайн илмий журнали.//2022.- Т. 2. – №.2.-С-194-198.
4. Жумаева М. М., Даминов Ш.Х., Адуллаев Ж.Х. Эффективность Применение Цифровой Рентгенографии При Хронической Обструктивной Болезни Легких //CENTRAL ASIAN JOURNAL OF MEDICAL AND NATURAL SCIENCES //2022.-Т.3.-№.3.-С-52-58. <https://doi.org/10.17605/OSF.IO/CJGMS>
5. Jumaeva M. M., Akhmadova M. A. THE POSSIBILITIES OF USING DIGITAL RADIOGRAPHY IN THE DIAGNOSIS OF CHRONIC OBSTRUCTIVE PULMONARY DISEASE //Modern Journal of Social Sciences and Humanities ISSN: 2795-4846.- ISSN: 2795-4846- // Vol. 4. 2022.-P-99-103. <https://mjssh.academicjournal.io/index.php/mjssh>
6. Ахмедов Ф. Х., Жумаева М. М. Узи При Жкб, Острый Калькулёзный Холецистит, Выбор Больных Для Лхэ, Изменение Желчных Протоков До И После Операции //CENTRAL ASIAN JOURNAL OF MEDICAL AND NATURAL SCIENCES- 2022.- Т.3. – №.3.- С-322-324. <https://cajmns.centralasianstudies.org/index.php/CAJMNS/article/view/788//>
7. Ахмедов Ф. Х., Жумаева М. М. Сравнительная Морфометрия Внутри И Внепеченочных Желчных Путей, Желчных Сфинктеров У Больных С ЖКБ, Подвергшихся Классической И Лапараскопической Холецистэктомии //RESEARCH JOURNAL OF TRAUMA AND DISABILITY STUDIES// 2022.- стр 231-241.
8. J.M. Mustaqimovna Diagnostics of Thyroid Diseases with the Help Ultrasonic Examination // Research Journal of Trauma and Disability Studies Vol 1(10), 2022.- P.129-134. <http://journals.academiczone.net/index.php/rjtds/article/view/358>
9. Ахмедов Ф. Х., Жумаева М. М. МОРФОЛОГИЧЕСКИЕ ИЗМЕНЕНИЕ ПРИ ЖЕЛЧЕКАМЕННОЙ БОЛЕЗНИ // EURASIAN JOURNAL OF MEDICAL AND NATURAL SCIENCES- ISSN 2181-287X- 2 (12) 2022. – С - 274-283. <https://doi.org/10.5281/zenodo.7381138>
10. Ахмедов Ф. Х., Жумаева М. М. Ультразвуковая Диагностика Желчного Пузыря При Желчекаменной Болезни // AMALIY VA TIBBIYOT FANLARI ILMIY JURNALI - ISSN: 2181-3464.-1(7). -2022.-Б.-15-21.
11. Ахмедов Ф. Х., Жумаева М. М. Сравнительная Морфометрия Внутри И Внепеченочных Желчных Путей И Желчных Сфинктеров У Больных С ЖКБ // AMALIY VA TIBBIYOT FANLARI ILMIY JURNALI - ISSN: 2181-3464.-1(7). -2022.-Б.-22-27.
12. Akhedov F.Kh., Jumaeva N. Kh. Jumaeva M.M. COMPARATIVE MORPHOMETRY OF THE BILIARY TRACTS AND BILE SPHINCTERS IN PATIENTS WITH GSD UNDERGOING CLASSICAL AND LAPAROSCOPIC CHOLECYSTECTOMY.// Uzbek Scholar Journal- (<https://uzbekscholar.com/index.php/uzs/article/view/466>)
13. Ахмедов Ф. Х., Жумаева М. М., Абдуллаев Ф.Ф. Абдоминальная Боль При Желчнокаменной Болезни И Постхолецистэктомическом Синдроме//AMALIY VA TIBBIYOT FANLARI ILMIY JURNALI- ISSN: 2181-3450.-1(7). -2022.-С.-236-241.
14. Ахмедов Ф.Х., Жумаева М.М. Биллиарный Сладж// Research Journal of Trauma and Disability Studies- ISSN: 2720-6866.-1(12). -2022.-С.-73-82.
15. Нарзиева Д.Ф. Значение Иммуногистохимических маркеров при метастазировании рака молочной железы в легкие.// Oriental Renaissance:Innovtive,educational,natural and social sciences.// -2021 Vol.1-С.170-175



16. Akhmedov F. Kh., Jumaeva M. M. Ultrasound Comparative Morphometry in Patients with Conventional Cholecystectomy//Journal of Natural and Medical Education. -2023.- Volume 2, Issue 3. ISSN: 2835-303X. –P. 168-173.
17. Akhmedov F. Kh., Jumaeva M. M. Ltrasound Comparative Morphometry of Intra- And Extrahepatic Bile Ducts after Laparoscopic Cholecystectomy //Journal of Natural and Medical Education. -2023.- Volume 2, Issue 3. ISSN: 2835-303X. –P. 174-179.
18. Жумаева М. М. Ўт Тош Касаллигида Ут Копи Деворининг Морфологик Ва Гистокимёвйи Ўзгаришлар //AMALIY VA TIBBIYOT FANLARI ILMIY JURNALI.- 2023.- Jild: 02 Nashr:04.-Б.-1-4.
19. Жумаева М. М. Касалхонадан Ташқари Пневмония Ва Унинг Клиник Кечишининг Нур Ташхисоти// AMALIY VA TIBBIYOT FANLARI ILMIY JURNALI.- 2023.- Jild: 02 Nashr:06.-Б.-40-44.
20. Jumaeva M.M. Informativeness of Ultrasound in the Diagnosis of Changes in the Wall of the Gallbladder in Cholecystitis// CENTRAL ASIAN JOURNAL OF MEDICAL AND NATURAL SCIENCES.2023.Vol 4.Issue 3.- P-657-660..//
21. Jumaeva M. M. Informative Value of Ultrasound Examination in Various Forms of Acute Cholecystitis// AMERICAN Journal of Pediatric Medicine and Health Sciences. Volume 01, Issue 06, 2023.-P.167-170.
22. Жумаева М.М. Гистохимический способ диагностики деструктивных форм острого холецистита// CENTRAL ASIAN JOURNAL OF MEDICAL AND NATURAL SCIENCES.Volume:04Issue:03.May-June2023.-P.670-673. <http://cajmns.centralasianstudies.org>