INTERNATIONAL JOURNAL OF
INTEGRATIVE AND
MODERN MEDICINE

Study of Changes in Stomach Parameters in Non-Pedigreed White Rats

Qosimov U. R., Eshpulatov E. Y.

Annotation: 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.

Keywords: 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 external world from entering the body, on the other hand, it is involved in metabolic processes between the external and internal. Due to its proximity to the microbiota and its direct contact with food, it always affects "normal" and potentially dangerous antigens. The human stomach usually consists of the Cardial, pyloric part and the body located between them, as well as the fundal or tubal parts.

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.

Purpose of the study: study of morphometric indicators of the stomach of white-breed rats.

Research methods and techniques:

150 in both sexes grown under standard vivarium conditions for experimental scientific research, age 3-12 months, Weight 200 g. from - 500 g. up to white broodless rats 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 debate: morphometric indicators of normal white - breed rat stomachs: newborn white - breed rats at esophageal transition (esophageal section), total stomach wall thickness - 80.0 mkm to 205.0 mkm, average 135.2±5.2 mkm; muscle floor - 42.3 mkm to 87.1 mkm, average 72.5±2.3 mkm; circular muscle floor-16.4 mkm to 32.8 mkm, average 31.6±1.5 mkm; longitudinal muscle layer 24.6 mkm to 49.2 mkm, average 40.9±1.8 mkm; mucosal thickness-34.6 mkm to-41.0 mkm, average 40.3±1.2 mkm; the mucosal base ranges from 12.1 mkm to 24.6 mkm, with an average of 22.3±1.2 mkm; whereas in the gastric 12-finger bowel transition (intestinal section), the total stomach wall thickness ranges from 260.0 mkm to 334.8 mkm, with an average of 276.6±6.2 mkm, muscle layer 60.2 mkm to 172.5 mkm, mean 101.3±3.1 mkm, circular muscle layer 24.6 mkm to 41.0 mkm up to MKM, mean 35.6±1.3 mkm, longitudinal muscle layer 24.5 mkm to 114.2 mkm, mean 65.7±3.6 mkm, mucosal thickness 106.6 mkm to 233.7 mkm mean 158.5±3.1 mkm, mucosal base 12.3-24.6 mean 16.8±1.2 mkm; The thirty - day White bats are found in the esophageal passage of the stomach (esophageal section),with a total stomach wall thickness of 393.3 mkm to 522.1 mkm, an average of 475.8±5.2 mkm,a muscle layer of 186.4 mkm to 258.5 mkm, an average of 207.1±2.8 mkm; a circular muscle layer of 31.0 mkm to 103.0 mkm, an average of 73.7±1.5 mkm,a longitudinal muscle layer - from 45.6 mkm to 224.2 mkm, average 133.4±1.3 mkm; mucosal thickness - from 206.9 mkm to 243.6 mkm, average 215.4±1.2 mkm; mucosal base - from 20.5 mkm to 90.2 mkm, average 53.3±1.2 mkm.

At the passage of the stomach to the 12 - finger intestine (intestinal section), the total thickness of the stomach wall is from 278.9 mkm to 570.3 mkm, average 488.9±6.2 mkm; muscle layer - from 95.5 mkm to 180.6 mkm, average 134.8±3.2 mkm; circular muscle layer 31.0 mkm to 85.8 mkm, average 50.3±1.2 mkm; longitudinal muscle layer - from 32.8 mkm up to 128.3 mkm, average 84.5±2.8 mkm; mucosal thickness - 212.9 mkm to 439.7 mkm, average 331.6±3.5 mkm; mucosal base 12.3 mkm to 69.7 mkm, average 22.5±1.3 mkm At the passage of the stomach to the 12 - finger instine (intestinal section), the total thickness of the stomach wall is from 278.9 mkm to 570.3 mkm, average 488.9±6.2 mkm; muscle layer - from 95.5 mkm to 180.6 mkm, average 134.8±3.2 mkm; circular muscle layer 31.0 mkm to 85.8 mkm, average 50.3±1.2 mkm; longitudinal muscle layer - from 32.8 mkm up to 128.3 mkm, average 84.5±2.8 mkm; mucosal thickness - 212.9 mkm to 439.7 mkm, average 331.6±3.5 mkm; mucosal base 12.3 mkm to 69.7 mkm, average 22.5±1.3 mkm.From the above data, it can be determined that in the newborn Ham, the total thickness of the stomach wall of thirty - day white rats increased in the esophagus at the transition to the stomach (Cardial section) by 3.5 times, the muscle layer - by 2.9 times, the thickness of the mucous membrane - by 5.3 times, and the base of the mucosa - by 2.4 times. In its output (intestinal section), the total thickness of the stomach wall increased by 1.8 times, the muscle layer - by 1.3 times, the thickness of the mucous membrane - by 2.1 times, and the base of the mucosa - by 1.3 times.

Conclusion:

1. When we compare the micro-morphometric dimensions of the esophagus of white-breed rats with each other, the thickness of the mucous membrane in the Cardial part changed from 707 mkm to 705 mkm, the mucous membrane from 129 to 125 mkm,the musculature from 344 mkm to 339 mkm, the total thickness of all the layers changed from 1256 mkm to 1278 mkm, the thickness of the mucous membrane in the fundal part from the MKM, 124 mkmgcha, the total thickness of all floors reached 1008 MKM. The thickness of the mucous membrane in the body part varied from 689 mkm to 688 mkm, the mucous membrane from 123 to 119 mkm.

2. The results of the analysis show that although the organometric indicators of white broodless rats of 9 and 12 months differ from each other,the micro-morphometric indicators of the stomach of rats practically do not differ.

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 иследования// Барқарорлик ва Етакчи Тадқиқотлар 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 Калькулѐзный 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 Пузырья 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*