Normal Macroscopic, Morphological, and Morphometric Parameters of the Esophagus of Whiterats

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Histological methods of analysis of the morphofunctional status of the esophagus are widely used in the diagnosis and differential diagnosis of diseases of the gastrointestinal tract of various etiologies. However, their results do not always reflect the disruption of the entire organ structure. All this together increases the interest of researchers in the application of new methods of assessing esophageal pathology, which may be associated with microscopic evaluation of criteria for changes in esophageal pathomorphological structures, several anti-inflammatory agents, i.e. help detect changes in polypragmasic state. Therefore, macroscopic and microscopic studies of white esophageal rat esophagus were aimed at studying the normal data of esophageal tissue and comparing them with pathological processes, and 12 white non-white rat esophageal macroscopic and microscopic studies were performed.

Materials and methods. Based on macroscopic and microscopic studies of esophageal tissue during the examination, a total of 12 esophageal organs were examined macroscopically and microscopically. For general morphology, 3 pieces of tissue were cut from each esophagus, ie 1.5x1.5 cm from the upper, middle and lower parts, and solidified in 10% neutralized formalin. After washing for 2-4 hours in running water, it was dehydrated in increased concentrations of alcohols and xylene, then paraffin was poured and the blocks were prepared. Incisions of 5–8 μm were made from paraffin blocks and stained with hematoxylin and eosin, by the Van-gizon method.

Conclusions and results. Because the esophagus is covered on the outside with connective tissue, it can easily change its transverse diameter as the food passes through it. Ingested food passes into the stomach due to esophageal peristalsis, and then to all parts of the digestive system. In white rats, the esophagus is 3-5 cm long, while in humans the esophagus consists of a muscular tube 23-25 cm long. On macroscopic incision, the esophageal wall consists of mucous, submucosal, and muscular layers. The weights of the control group rats ranged from 125g to 135g, with an average of -130g. The esophageal mass of the control group of rats ranged from 1.6 g to 2.8 g, on average - up to 2.50 g. When morphologically and morphometrically examining the muscular layer of the esophagus in white rats, the following parameters were determined (μm): Muscle plate (MP) 13.10. Mucous layer (ML) 0.34. Circular layer (CL) 134.38. Muscle layer (ML) 2.69

Longitudinal muscle layer (ML) 118.45. Muscle layer (ML) 2.47

Normal morphometric parameters of the esophageal muscle layer

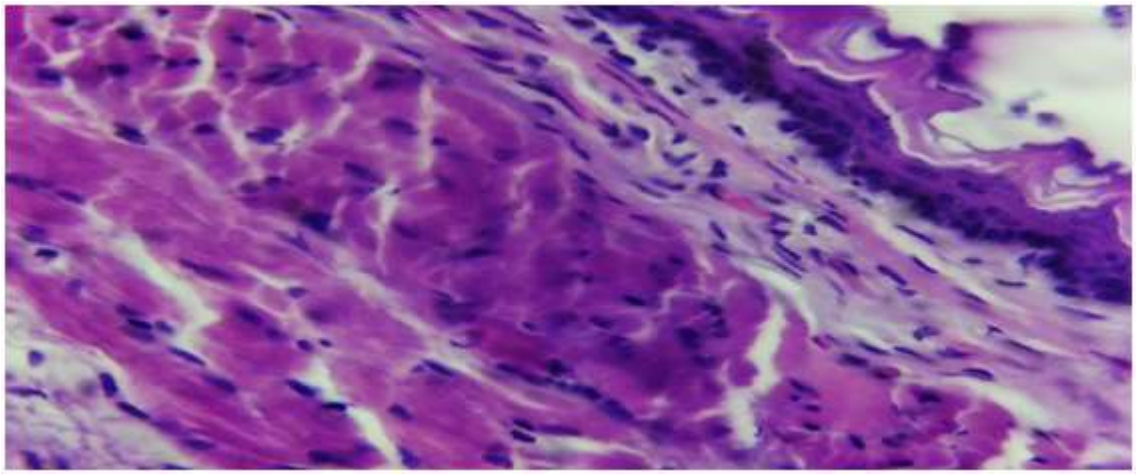
Age (daily)	Animal group	Muscle layer thickness (mm)		
		MPML	CLML	MLML
120	normal	13,10 +_0,34	134.38+_2,69	118,45+_2,47

At the end.

- These data allow to distinguish pathologies using a microscope and compare muscle tissue with each other, knowing the normal parameters of the esophagus.
- This information will be available to students in the departments of histology of medical institutions to fill in the microscopic and macroscopic data in the educational process.

ISSN 2722-0672 (online), https://pssh.umsida.ac.id. Published by Universitas Muhammadiyah Sidoarjo





References.

1. Sanoev B. A.*, Israilov R. I. and Djuraeva G. B. QUANTITATIVE INDICATORS AND METHODS FOR MODELING
2. Sanoev B.A. MORPHOLOGICAL AND MORPHOMETRIC CHARACTERISTICS OF THE PLACENTA IN NORMAL PREGNANCY.
3. Саноев Бахтиѐр Абдурасулович. МОРФОЛОГИЧЕСКИЕ И МОРФОМЕТРИЧЕСКИЕ ХАРАКТЕРИСТИКИ ПЛАЦЕНТЫ ПРИ НОРМАЛЬНОЙ БЕРЕМЕННОСТИ.
4. Б.А. Саноев, ТШ Ниёзова, НИ Хикматова. Макро – и микроскопические проявления лейомиом матки.
5. Sanoyev Bakhtiyor Abdurasulovich, Olimova Aziza Zokirovna. Pathology of Precancerous Conditions of the Ovaries in Women of Reproductive Age. Volume: 01 Issue: 06 | 2021.
6. Olimova Aziza Zokirovna, (2021, July). COMPARATIVE CHARACTERISTICS OF THE MORPHOLOGICAL PARAMETERS OF THE LIVER AT DIFFERENT PERIODS OF TRAUMATIC BRAIN INJURY. In Euro-Asia Conferences (pp. 139-142).
7. Olimova Aziza Zokirovna. Частота Встречаемости Миомы Матки У Женщин В Репродуктивном Возрасте. JOURNAL OF ADVANCED RESEARCH AND STABILITY (JARS). Volume: 01 Issue: 06 | 2021. 551-556 p
8. Olimova Aziza Zokirovna, Sanoyev Bakhtiyor Abdurasulovich. OVARIAN DISEASES IN AGE OF REPRODUCTIVE WOMEN: DERMOID CYST. Volume: 01 Issue: 06 | 2021. 154-161 p
9. Olimova Aziza Zokirovna. РЕПРОДУКТИВ ЁШДАГИ ЭРКАКЛАРДА БЕПУШТЛИК САБАБЛАРИ: БУХОРО ТУМАНИ ЭПИДЕМИОЛОГИЯСИ. SCIENTIFIC PROGRESS. 2021 й 499-502p

ISSN 2722-0672 (online), https://pssh.umsida.ac.id. Published by Universitas Muhammadiyah Sidoarjo

10. Olimova Aziza Zokirovna .MACRO- AND MICROSCOPIC STRUCTURE OF THE LIVER OF THREE MONTHLY WHITE RATS. ACADEMIC RESEARCH IN EDUCATIONAL SCIENCES /2021 й. 309-312 p
11. Kadirova L.V. The Role of Cellular Immunity in Formation of Endothelium Disfunction in Patients with Nonspecific Aortoarteriitis. // The pharmaceutical and chemical journal. 2021; 8(2): 43-46.
12. Kadirova Laylo Valizhanovna RATIONAL APPLICATION OF NEW PEDAGOGICAL METHODS OF TEACHING IN A MODERN UNIVERSITY, RESULTS AND EFFECTS OF INTERACTIVE LEARNING // БАРҚАРОРЛИК ВА ЕТАКЧИ ТАДҚИҚОТЛАР ОНЛАЙН ИЛМИЙ ЖУРНАЛИ. 2022. 2(2). P. 33-38.
13. Кадырова, Л. В., & Рахимова, Г. Ш. (2021). Некоторые Аспекты Состояния Эндокринных Желёз Белых Крыс После Черепно-Мозговой Травмы. CENTRALASIANJOURNALOFMEDICALANDNATURALSCIENCES, 254-257.
14. Лайло Валижановна Кадирова ИНТЕРАКТИВНЫЙ МЕТОД « БЛИЦ ОПРОС » ПРИ ПРЕПОДАВАНИИ ПРЕДМЕТА ПАТОЛОГИЧЕСКАЯ ФИЗИОЛОГИЯ, НА ПРИМЕРЕ ТЕМЫ: «ВОСПАЛЕНИЕ» // Scientificprogress. 2022. №2.
15. Турдиев М.Р., Тешаев Ш.Ж. Сравнительная характеристика морфологических и морфометрических параметров селезенки белых крыс в норме, хронической лучевой болезни и при коррекции биостимулятором // Биология ва тиббиёт муаммолари – 2020. – №4 (120) – С.160-165
16. Турдиев М.Р. Морфофункционалные особенности селезенки белых крыс в норме и при хронической лучевой болезни // Новый день в медицине.–2020.–3 (31) – С.734-737
17. Sokhibova, Z. R., &Turdiyev,M. R. (2021).Some Features Of Laboratory Indicators Of Micro And Macro-Elementary Condition Of The Organism Of Female Age Women Innormality And In Iron Deficiency. The American Journal of Medical Sciences and Pharmaceutical Research, 3(02), 140-145.
18. Turdiyev, M. R., &Sokhibova, Z. R. (2021). Morphometric Characteristics Of The Spleen Of White Rats In Normal And In Chronic Radiation Disease. The American Journal of Medical Sciences and Pharmaceutical Research,3(02), 146-154.
19. Turdiev M.R., Teshaev S.J.Comparative characteristics of the spleen of white rats in normal and chronic radiation sickness // Chief Editor. T. 7. P. 11.
20. Turdiyev,M. R., Teshayev Sh. J. Morphometric Assessment of Functional Immunomorphology of White Rat Spleen in the Age Aspect American Journal of Medicine and Medical Sciences 2019, 9(12): 523-526

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