



**IMMUNOMORPHOLOGICAL FEATURES OF THE HISTOLOGICAL
STRUCTURES OF THE SPLEEN OF WHITE RATS IN SE
MICROELEMENTOSIS.**

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Annotation: Research the breed of white rats in the period of 6 and 9 months of age without talog'i the histological structure of the tissue, the cell culture composition and immunogistokimyoviy indicators were analyzed. That results in the failure analysis of selenium alimentar parenxima this member-strong balance the violation of limfoid tissue morfometrik indicators, limfoid and will determine the level of reduction in the number of cells express immunogistokimyoviy markyorlar. These changes decrease the body's immune response suppression and protection with appeared.

Keywords: alimentar regurgitation, spleen, morfofunktional features white rats, age, period, and the immune system.

The actual ministry. To maintain the health of the human immune system plays an important role. As a member of the spleen, the immune system is of particular interest, because the immune system of the body of people and animals eng is one of the systems are sensitive, any effects will respond quickly [1, 2, 5, 6, 9].

Large secondary member of the spleen limfoid, filtration, cleaning, immune, blood and performs functions such as storage of reserves in the form [1].

Different chemical elements, in particular, is important in maintaining the health of the body's physiological activity and micronutrients. Micronutrients, growth, development, reproduction, laktasiya, it is necessary to provide gemapoez and other vital processes. The immune system depends on the amount of active in their body. Micronutrients in the body and is involved in regulation of mineral metabolism metabolitik provides all types of processes [7].

According to many experts, istemol its human health depends on the nature of the product. Human health, life expectancy and plays the main role in maintaining the quality among micronutrients which are important nutritional factors [3, 4, 9].

The research object as 6 and 9 months of age in the period are stored in simple white male rats was using 80 viva conditions without seed.

Material and methods. 6 and 9 months of age in the period of the research 80 ta zo whitetstrack erk potential in rats was conducted. The use of animals in



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experimentation on etika rules, follow the requirements of the congress will Xelsinki. Rats were kept in viva simple conditions. Experience in the laboratory of the animal's age, sex, weight, nutrition were kept correspond to the conditions in the environment. Two indicators to determine the structure of the spleen morfofunksinal a group of animals was established. I group - normative (n=40); II group – etishmaydigan of rats given selenium diet (n=40). Modeling a shortage of micronutrients German for“Spezialfutter ALTROMIN gmbh & co. KG” prepared by the firm led to the use of a special feed. Special series no. feed 36/2024 have been provided with an official certificate. 2 sticks per day to rats in the control group were given the usual feed. Without special body weight in feed per day due to the experience of the group 2 sticks of 20 g, were used during the 24 weeks.

The experimental and control groups was removed from the experiment the rats under anesthesia without the white seed was dekapitasiya and air. Divorced opened the abdominal cavity were separated. The spleen is part of 10% formalin in fiksasiya neytrallash am and after being washed in running water for 2-4 hours, and in an increased kontsentrasiyasi spirtlar xloroform suvsizlantirildi, the wax block was prepared in accordance with generally accepted methods. Mkm wax blocks 4-6 thick cut down gematoksilin – eVan fewer and your business, the method was painted. The spleenlimfoid structure of the cells in order to study Model NLCD NOVELLA-307 (China) using a microscope, pitches immersiya under the white pulp of structural qismalarida (periarterial limfatik this joint coupling feature germinativ center, the mantiya and marginal area)on the number of cells was counted. Okulyar installed to count the number of cells was carried out using a microscope to morfometrik November.

The statistical processing of the survey data Strelkov (1986) were used without statement, parametrik variasion was done using statistical methods. Styudent the significance of the difference in value compared to the t-criteria were assessed using. Differences of $p \leq 0.05$ for statistical significance at the value of ethat ha.

Results. White rats in the control group consists of the outer side is covered with a capsule of connective tissue from talog'i. Trabekular from the capsule into the member there. Among trabekular parenximasi spleen is located. Parenximasi member consists of red and white pulp. Sinusoidal capillaries in the red pulp of the spleen and the strip. Many of the white pulp and periarterial limfoid follikul limfoid muftasi was founded.



Healthy white talog'ida of rats T-limfositlar ekspresiyasi age 6 and 9 monthly in the period of 31 cd3 markyori level representing respectively, $56\pm 1,18\%$ and $25,46\pm 1,02\%$ accounted for. Proliferativ cells representing the activity of ki-67 level corresponding to the period of the age of markyori ekspresiyasi without $9,86\pm 0,64\%$, and $6,14\pm 0,46\%$ equals determines that.

6 monthly in the amount of white pulp when analyzing the structure struktur limfositlar talog'i of laboratory animals, reproduction in the center of the average - $120,32\pm 1,22$ units, periarterial the average in the area - $102,18\pm 1,24$, mantiya in the field of average - $133,48\pm 1,34$ units, the average marginal area - $100,17\pm 1,16$ units, respectively. 9 month age period increased in rats while the average white in the center - $114,64\pm 1,16$ units, periarterial the average in the area - $93,24\pm 1,14$ units, mantiya in the field of average - $126,63\pm 1,18$ units, the average marginal area - $92,96\pm 1,12$ aniklash than that will.

I am in the group of rats without failure modeling selenium talog'i breed the whitegate field the thickness of the capsule in white rats in comparison with the control group, respectively, and increased to 6 month 9 month age period 1,08 times. The diameter of the proximal part of the period due to both the age of trabekulaning without 4,4% and 4,74%, while the distal portion 4,77% and 5,1% increase aniklash will. White pulp of the area relative 6-month age period 5,1%, 6,12 month age period, while 9% were observed to be reduced by. The width of this joint coupling feature periarterial limfatik, limfatik in follikul and gthe diameter of the center erminativ 1,05 1,06 times due to both age and period respectively.

Structures determines the functional state of the spleen in young 1,10 limfoid follikuliyar koeffitsent 6 monthly period times, 9 times young 1,13 month period, reflecting the condition of the immune response determines the level of the reproduction center gumoral germinativ-follikliyar index and the ratio of t and v, indicating the size of the area to decrease, respectively, in 6-month age period will aniklash limfoid koeffitsent 1,01 times.

White seed of the white pulp of rats for 6 months without talog'i germinativ center, periarterial limfatik this joint coupling feature, the number of marginal fields in mantiya and breed rats in the control group in comparison with the white without limfositlar fit without at 3.4%, 6,3%, 4.5% and 5,2%, and 9 month age period while without becoming 4,75%, 8,4% and 6,3 7,43% and decreased by.

Level 6 monthly period of white rats in the experimental group talog'ida cd3 markyori ekspresiyasi young 5,08% and 9 monthly age period in comparison with

6.1%, representing activity of the cells proliferativ ki-67 level corresponding to the period of the age of markyori ekspresiyasi without 4,14% and 3,02% reduction will determine the.

Conclusion. Spleen capsule thickness and the diameter of laboratory animals in failure elen trabekularis an increase in the relative area of the white pulp, periarterial limfatik this joint coupling feature of the width and the decrease in the diameter of the center limfatik follikul germinativ were observed. Follikulyar koeffitsent, germinativ-like morfofunktsional koeffitsent limfoid follikulyar index and indicators, as well as germinativ center, periarterial, mantiya and marginal areas of the decrease in the number of the immune response in the spleen limfositlar limfoid means that structures would be reduced. Immunogistokimyoviy decrease of functional activity in the spleen cells and analysis of the results shows that immunokompetent proliferativ. White seed of rats without these changes manifest talog'ida 9 month, especially if the age in the case of failure related to the period of selenium in the spleen suggest that the development of significant morphological changes in the structure limfoid.

LITERATURE LIST:

1. Алексеева Н.Т., Кварацхелия А.Г., Соколов Д.А., Бахмет А.А., Попов М.В., Вердиян Г.Г., Ключкова С.В. Функциональная морфология иммунных структур селезенки при действии повреждающих факторов. Журнал анатомии и гистопатологии. 2021; 10(3): 91–97. doi: 10.18499/2225-7357-2021-10-3-91-97.

2. Ильина Л.Ю., Козлов В.А., Сапожников С.П., Гераев РА. Реакция лимфоидной ткани селезенки белых мышей на амилоидогенез. Acta Medica Eurasica. 2020;(3):30–36 doi: 10.47026/2413-4864-2020-3-30-36.

3. Павлова Е.В., Русак Ю.Э., Ефанова Е.Н. Биологическая роль микронутриентов (минералов) в формировании здоровья человека: дерматологические аспекты. часть II // "Медико-фармацевтический журнал "Пульс". 2020. Vol. 22. N 9. С-69-73.

4. Родионов Г.Г., Шантырь И.И., Светкина Е.В., Колобова Е.А., Фоминых Ю.А., Наджафова К.Н. Обеспеченность жирорастворимыми витаминами организма взрослого населения жителей г. Санкт-Петербурга. Университетский терапевтический вестник. 2024;6(2):128–139. DOI: <https://doi.org/10.56871/UTJ.2024.17.90.014>.

5. Турдиев М.Р. Турли патоген омиллар таъсирида тимус морфофункционал хусусиятларининг ўзгариши (адабиётлар шарҳи) // Фундаментал ва клиник тиббиёт ахборотномаси 2025, №3 (17). 308-312 б.



6. Турдиев М.Р., Сохибова З.Р. Постнатал онтогенезда оқ каламушлар тимусининг ёш даврларига боғлиқ морфофункционал хусусиятлари // Тиббиётда янги кун. 10 (84) 2025 й. 648-653 б.

7. Федоров В.И. К проблеме определения микроэлементов в сыворотке крови человека // Аналитика и контроль. 2005. Т.9.№4. С.358-366.

8. Шантырь И.И., Яковлева М.В., Власенко М.А., Макарова Н.В., Фоминых Ю.А., Наджафова К.Н. Обеспеченность эссенциальными биоэлементами организма взрослого населения г. Санкт-Петербурга // Университетский терапевтический вестник. 2024. Т. 6. № 3. С. 105–115. DOI: <https://doi.org/10.56871/UTJ.2024.12.51.011>.

9. Riva MA, Ferraina F, Paleari A, Lenti MV, Di Sabatino A. From sadness to stiffness: the spleen's progress. Intern Emerg Med. 2019 Aug;14(5):739- 743. doi: 10.1007/s11739-019-02115-2.