

MORPHOLOGICAL FEATURES OF THE LYMPHOID APPARATUS OF THE SPLEEN IN POSTNATAL DEVELOPMENT

Khairiyeva Dilshoda Ulugbekovna
Bukhara state medical institute

<https://doi.org/10.5281/zenodo.13932530>

In postnatal development, the lymphoid apparatus of the spleen very effectively undergoes a full cycle of age-related restructuring, which indicates obvious immune changes in the body at this age. Thus, the spleen of animals of the age corresponding to the thoracic period looks morphologically quite unprepared: with foci of myelopoiesis in the red pulp, with a relatively small volume of white pulp, presented mainly by periarterial lymphoid sheaths (PALS), predominantly small and average, as well as newly formed lymphoid nodules, enveloped in a halo of the marginal zone with unconvincing and unclear outlines. By the time the animals were transferred to independent feeding, the volume of white pulp had increased significantly: the diameter of the PALV had expanded due to the appearance of large lymphoid sheaths, and division centers were formed in the expanding lymphoid follicles. In newborns, the correspondence of white pulp depending on different ages has a moderately low indicator. All this is due to the fact that, in the first three decades of life, lymphocytes mainly fill the pulp of the spleen, the lymph nodes are then very small in size and it is quite difficult to determine any areas there. Since in this place there are the remaining areas of erythropoiesis, given that upon reaching the suckling period of the experimental animals, their spleen at this age still performs the mission of hematopoiesis. On the third day after birth, foci of myelopoiesis remain there, mainly due to thrombocytopoiesis. After which, at this stage of events, it will be possible to observe the appearance of small islets of lymphoid nature near these blood vessels, which are the prototypes of primitive periarterial lymphoid cuffs (PALM).

Upon reaching seven days, in young rats, the elements of the periarterial lymphatic cuffs acquire clearer outlines, which allow us to determine their belonging to certain structures of this organ, although at this point in the white pulp it is impossible to see B-cell areas, the formation of which lags behind the growth of T-areas of the periarterial lymphatic cuffs.

On the tenth day from birth, certain formations can be observed in rats, in which it will be possible to recognize the marginal zone. At the end of the second week, we can notice the formation of individual lymphatic nodules.

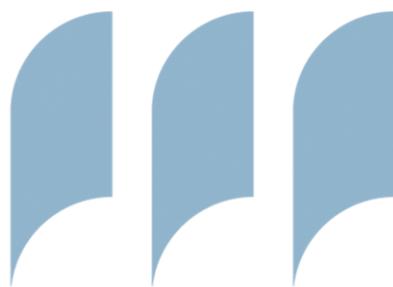
Also, during early ontogenesis in rats, it was possible to distinguish some features of the growth and development of some parameters of the organ, which can be seen by the increasing indicators of the lymphoid structures of the spleen. By the end of the third week from birth, that is, at the end of the infancy period, it will be possible to see a change in some qualitative characteristics, which were represented by the presence of a small number of secondary lymph nodes and lymphatic couplings, reflecting the functional state of readiness of the immune status of this organ. In the puberty period, the area of the lymphoid elements of the spleen begins to change somewhat, so we can see a decrease in the size of the follicles and an increase in the size of the reactive centers. Of all this, we can observe the above centers only in 10% - 12% of lymph nodes. Gradually, over time, we can see changes that occur in the PALM, so there is an increase in the size of the area of these very couplings. Characteristic changes can also be observed in the quantitative state of the lymphoid nodes, a decline in which is usually observed at the age of 4 to 6 months and some unchanged number of them can be observed only in the subcapsular

region. Starting from the age of six months, the qualitative and quantitative composition of sinusoids in the spleen, namely the red pulp, changes towards an increase. After a period of time, that is, over time, we observe a quantitative decrease in the level of lymphoid elements.

References:

1. Олимова А. З., Шодиев У. М. Репродуктив Ёшдаги эркакларда бепуштлик сабаблари: Бухоро тумани эпидемиологияси //Scientific progress. – 2021. – Т. 2. – №. 7. – С. 499-502.
2. Zokirovna O. A., Abdurasulovich S. B. Ovarian Diseases in Age of Reproductive Women: Dermoid Cyst //IJTIMOIY FANLARDA INNOVASIYA ONLAYN ILMIY JURNALI. – 2021. – Т. 1. – №. 6. – С. 154-161.
3. Olimova A. Z. ECHINOCOCCOSIS OF LIVER OF THREE MONTHLY WHITE RAT //Scientific progress. – 2022. – Т. 3. – №. 3. – С. 462-466.
4. Олимова А. З. Морфологические и морфометрические особенности печени белых беспородных трех месячных крыс после тяжелой черепно-мозговой травмы вызванной экспериментальным путём //BARQARORLIK VA YETAKCHI TADQIQOTLAR ONLAYN ILMIY JURNALI. – 2021. – Т. 1. – №. 6. – С. 557-563.
5. Oglu M. Z. M., Zokirovna O. A. МОРФОЛОГИЧЕСКИЕ И МОРФОМЕТРИЧЕСКИЕ ПАРАМЕТРЫ ПЕЧЕНИ БЕЛЫХ БЕСПОРОДНЫХ КРЫС, ПЕРЕНЕСШИХ ЭКСПЕРИМЕНТАЛЬНУЮ ЧЕРЕПНО-МОЗГОВУЮ ТРАВМУ ПОСЛЕ МЕДИКАМЕНТОЗНОЙ КОРРЕКЦИИ //JOURNAL OF BIOMEDICINE AND PRACTICE. – 2023. – Т. 8. – №. 1.
6. Олимова А. З., Турдиев М. Р. БУХОРО ШАҲРИДА МЕЪДА ВА ЁН ИККИ БАРМОҚЛИ ИЧАК ЯРАСИ УЧРАШ ЭПИДЕМИОЛОГИЯСИ //Oriental renaissance: Innovative, educational, natural and social sciences. – 2022. – Т. 2. – №. 4. – С. 642-647.
7. Zokirovna O. A. Modern Concepts of Idiopathic Pulmonary Fibrosis //American Journal of Pediatric Medicine and Health Sciences. – 2023. – Т. 1. – №. 3. – С. 97-101.
8. Zokirovna O. A. Pathology of Precancerous Conditions of the Ovaries //American Journal of Pediatric Medicine and Health Sciences. – 2023. – Т. 1. – №. 3. – С. 93-96.
9. Зокировна, Олимова Азиза и Тешаев Шухрат Джумаевич. «Морфологические аспекты печени белых беспородных крыс после тяжелой черепно-мозговой травмы, вызванной экспериментально в виде дорожно-транспортного происшествия». *Scholastic: Journal of Natural and Medical Education* 2.2 (2023): 59-62.
10. Zokirovna O. A. Comparative characteristics of the morphological parameters of the liver at different periods of traumatic brain injury //Euro-Asia Conferences. – 2021. – С. 139-142.
11. Zokirovna O. A. Macroand microscopic structure of the liver of threemonthly white rats //Academic research in educational sciences. – 2021. – Т. 2. – №. 9. – С. 309-312.
12. Олимова А. З. Частота Встречаемости Миомы Матки У Женщин В Репродуктивном Возрасте //BARQARORLIK VA YETAKCHI TADQIQOTLAR ONLAYN ILMIY JURNALI. – 2021. – Т. 1. – №. 6. – С. 551-556.
13. Zokirovna O. A., Abdurasulovich S. B. Ovarian Diseases in Age of Reproductive Women: Dermoid Cyst //IJTIMOIY FANLARDA INNOVASIYA ONLAYN ILMIY JURNALI. – 2021. – Т. 1. – №. 6. – С. 154-161.
14. Zokirovna O. A. Cytological screening of cervical diseases: pap test research in the bukhara regional diagnostic center for the period 2015-2019. – 2022.

15. Zokirovna O. A., PREVALENCE R. M. M. EPIDEMIOLOGY OF CANCER OF THE ORAL CAVITY AND THROAT IN THE BUKHARA REGION //Web of Scientist: International Scientific Research Journal. – 2022. – T. 3. – №. 11. – C. 545-550.



INNOVATIVE
ACADEMY