Structural and functional features histoarchitectonics functional areas of the parenchyma of the dromedary lymph nodes (Camelus dromedarius)

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We studied the somatic and visceral lymph nodes of mature dromedary. Previous studies have shown that the structure of the lymph nodes of the dromedary possesses a number of macro and microscopic characteristics in terms of structural organization. Macroscopically, lymph nodes of dromedaries have lobed structure and represent a conglomeration of partially fused together units (macro-subunits) without any evidence of a specific spatial organization. In the lymph nodes, the lymph system intra-site sinus developed a much greater extent, than the lymph nodes and other species is represented by a uniform network of large lymphatic spaces and limiting lymphoid parenchyma islands. Despite this, parenchyma lymph nodes of islands have a lobular (compartment) ordered structure than in other mammalian species and consists of a complex structural and functional domains (units deep cortex, primary and secondary follicles, medullary cords) with specific cytoarchitectonics for each basic structure of the reticular. But still the main feature of the organization of the lymph nodes dromedary is a mosaic arrangement of lobes or compartments, which is not typical for other types of animals in which slices are usually arranged in one row. Determined that the conglomerates of the lymph nodes of the animal species consisting of subunits, parenchyma, which, in turn, divide in large lymphatic sinuses for some structural and functional areas (compartments). It has been established that in somatic lymph nodes of dromedary observed unequal development of the main components of the tissue (stroma of connective tissue, lymph sinuses, and lymphoid parenchyma) on the surface of which is approximately 30-35%. In the visceral lymph nodes, lymphoid parenchyma predominant (about 50%), for almost the same content of the other two components (about 25%).The areas of most advanced cells, the lobules (somatic lymph nodes) represented by deep cortex unit and medullary cords (visceral lymph nodes) and contents of the follicles in both lymph node groups, in adult dromedary and which does not exceed 6%.

Conclusions.

1. Dromedary lymph nodes conglomerates are partially fused subunits (units) with a specific histo-architectonics uniqueness which is a multilayer and mosaic arrangement of the structural units (lobules) of the parenchyma in the space from the capsule to the hilum of thickening.

2. The main morphological characteristics of the dromedary lymph nodes in the level of structural organization are: a significant development of the lymph sinuses, which is typical for all nodes of the skeleton and connective tissue, which is particularly expressed in the somatic lymph nodes. Consequently in total relative area of less than lymphoid parenchyma in somatic lymph nodes 40% and 50% of visceral.

3. Among the functional zones of the parenchyma lobes of the lymph nodes in the dromedary are more developed in deep cortex unit, medullary cords, and the relative area of follicles in the two groups of nodes does not exceed 6%.

4. Architectonic reticular essential characteristic of each functional area lobular units with maximum density arrangement of fibers medullary cords and the minimum in the follicles.

Lymph nodes, dromedary, structural and functional areas, lymphoid parenchyma, histo-architectonics relative area units deep cortex, medullary cords, follicle