MORPHOLOGICAL CHARACTERISTICS OF THYMUS GLAND IN YOUNG CHILDREN

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Abstract: Today, one of the most important problems for researchers is the study of the morphology, physiology and pathology of the immune system, which is primarily associated with the demands of clinical medicine, given that new environmental, social and other factors have begun to significantly influence the human body. The thymus gland is the central organ of immunogenesis and the endocrine gland. The structure (macro-microscopic picture) of the thymus was studied on 31 corpses of newborn children. We used anatomical methods (preparation, measurement) and histological methods (histological stain). In the darker, cortical zone, the cells are located very densely, their number is much greater than in the center of the cerebral zone. In the thickness of the medulla, there are single Gassal's bodies, blood capillaries, and lymph gaps. The cortical layer consists of lymphoid elements, very densely located, with mitoses in individual cells. The thymus gland has a delicate thin connective tissue capsule, consisting mainly of elastic fibers, collagen fibers are revealed among the fibers, collagen fibers and interlobular septa are well developed in newborns.

Key words: thymus gland, newborn, morphology, histology, structure.

МОРФОЛОГИЧЕСКАЯ ХАРАКТЕРИСТИКА ВИЛОЧКОВОЙ ЖЕЛЕЗЫ У ДЕТЕЙ РАННЕГО ВОЗРАСТА

Аннотация: Сегодня одной из важнейших проблем для исследователей является изучение морфологии, физиологии и патологии иммунной системы, что связано, прежде всего, с запросами клинической медицины, учитывая, что новые экологические, социальные и другие факторы начали существенно влиять на Тело человека. Вилочковая железа является центральным органом иммуногенеза и железой внутренней секреции. Строение (макро-микроскопическая картина) тимуса изучено на 31 трупе новорожденных детей. Использовали анатомические методы (препарирование, измерение) и гистологические методы (гистологическое окрашивание). В более темной, корковой зоне клетки расположены очень густо, их число значительно больше, чем в центре мозговой зоны. В толще мозгового вещества имеются единичные тельца Гассаля, кровеносные капилляры и лимфатические щели. Корковый слой состоит из лимфоидных элементов, очень плотно расположенных, с митозами в отдельных клетках. Вилочковая железа имеет нежную тонкую соединительнотканную капсулу, состоящую преимущественно из эластических волокон, среди волокон выявляются коллагеновые волокна, у новорожденных хорошо развиты коллагеновые волокна и междольковые перегородки.

Ключевые слова: вилочковая железа, новорожденный, морфология, гистология, строение.

INTRODUCTION

Injection. Airisiman is a central member of the immune system and is a member that provides, strengthens and activates the biological protection of the human body [1,2,3,10]. Specialists in the field of immunomorphology consider the immune system directly as a complex

of organs, tissues and cells aimed at protecting the body from various diseases and eliminating various biological substances affecting the body [4,5,6,9]. The immune system is an obstacle to infections that cause infectious diseases (bacteria, viruses, zamburugi). The immunodeficiency system is precise in the path of infections (bacterial, viral, fungal). If in certain cases there are disorders in the activities of the immune system, then the development of the infectious process develops, which leads to the emergence of various autoimmune diseases. Knowledge of the age structure, tasks of the immune system, especially the structure and activity of some glands, is one of the most pressing problems during the active development of the immune process during their birth and requires the study of various immunological processes that occur mainly in the postnatal period, leading to weakening or disappearance in general. The data are the level of knowledge required in clinical medicine and practice for the direct organization of preventive and treatment activities.

Purpose of the work. In Samarkand, newborns are a more advanced study of the morphological structures and predisposition of the irisiman gland.

Inspection materials and methods. To study the morphological and anatomical structures of iron, 31 newborns associated with various causes of death (mainly craniocerebral injury, asphyxiation, etc.) were studied. Test methods: anatomical methods: drug, weight, measurement, histological methods: hemotoxylin-eosin and Van-Gison.

Results of the science work. Toothless - a penis with a small size of fluffy gray, with a soft consistency, with stripes. The newborn grew on average from 4.5 to 7.5 cm (average 5.8 cm), the left side - from 4.8 to 5.5 cm (average 5 cm), and the daily dimensions of the right cavity - from 1.7 to 2.3 cm (average 2 cm), the left - from 1.6 to 3.4 cm (average 2 cm). The thickness of the right band ranged from 0.8 to 1.4 cm (average 1 cm).

The upper limit of the gland is located on the stem (bones) of the muscular bone or at a distance of 1.5-2.5 cm from this point. The border of the right muscle is located just above the left side. The lower border of the pancreas is located at a distance of 0.5 to 2.0 cm (average 1 cm), to the left from 1 to 1.2 cm (average 1 cm).

The capsule is coated with a capsule consisting of thin, thin connective tissue consisting mainly of elastic collagen fibers (Figure 1). The pustlac layer consists of a large number of dense lymphocytes. And in the remote regions of the desert layer under the capsule there are lymphoblasts in the range of 18-20%. On the Magiz floor there are also lymphoblasts (20%), but less than on the layers of pustlac (48-50%). On the Magiz floor, Gassalian coins are mainly found (60-65%), and in the center (8-10%) - gassal coins (Figure 2). In intermediate barriers containing tissues, the petioles of lymphatic vessels form. Its vascular wall will be thicker, sclerosed in holates by 1.5-2%. The number and dynamics of cells (number, location, shape) in the composition of the empty layer of the treeless cavity of newborns are indicated in Table 1 (Figure 2.3). In Samarkand, lymphoblastic lymphoblasts in the newborn Samarkand were 25.5 ± 3.0, small lymphocytes 27.8 ± 0.7, and stereometric classification of the magize layer 26.6 ± 0.6 was 63.5 ± 0.4.

Conclusion. Thus, the term has a dividing structure whose dimensions vary. Among the rods is a thin, thin connective fabric consisting mainly of elastic fibers. Gassal's bodies in texture are more common mainly on the magic floor. Lymphoblasts gather everywhere and form specific areas. The walls of some vessels around the penis will be infiltrated by lymphoblasts.

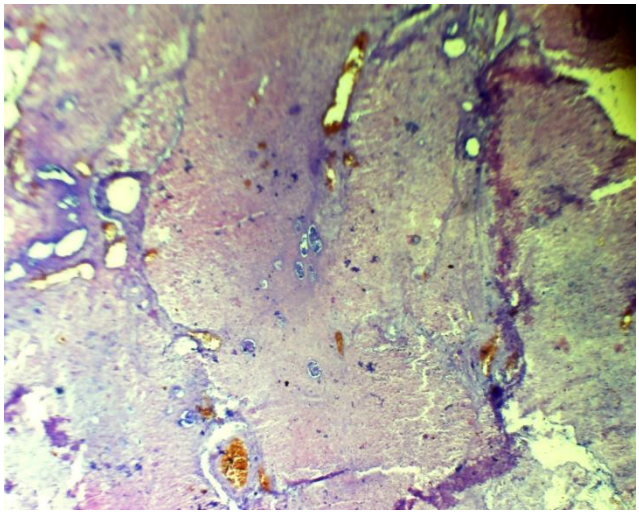

Figure 1. Medulla thymus. Pigment caps and big Gassal coins. Objectively 40, eyepiece 20.

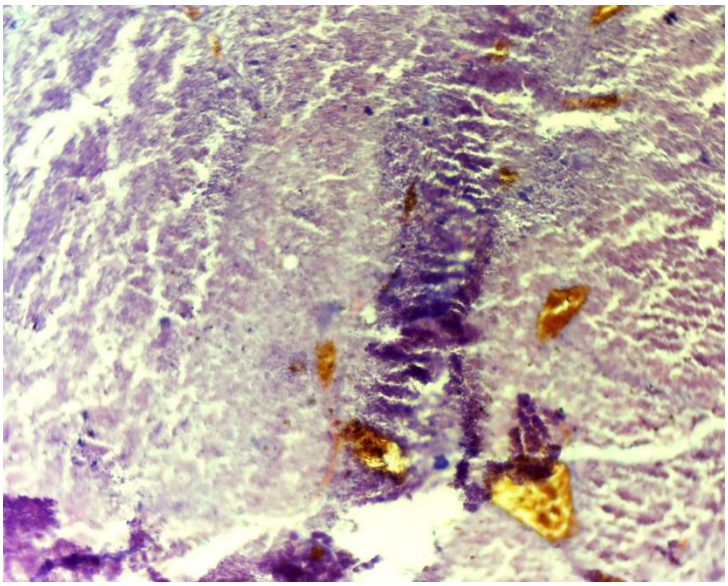

Figure 2. Medulla thymus. big Gassal coins. Objectively 40, eyepiece 20.

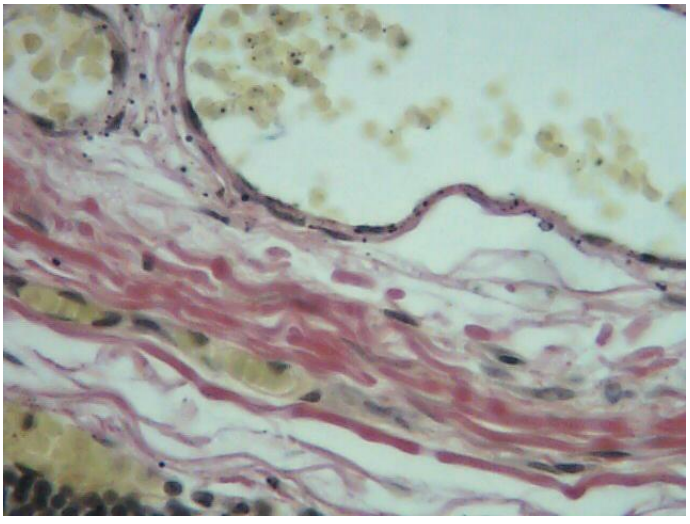

Figure 3. Collagen and reticular fibers. Objectively 40, eyepiece 20.

Table 1

Dynamics of the composition of cells determined on the surface of the conditional field of the void layer

Cell composition	Samarkand
Lymphoblast	25,5± 0,5
Lymphocyte media size	53,5± 0,7
Lymphocyte mini size	294,0± 1,4
Apoptosis	67,5± 1,3
Mitosis	22,7± 0,5
Macrophages	7,6± 0,3
Gassal coins (body)	6,2± 0,3
Total Cell Count	473,4± 1,7
Stereometric classification of the thymus (M±m) %	
Cortex thymus	73,6± 0,4
Medulla thymus	27,5± 0,6
Intercept thymus	2,8± 0,2

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