


<p> ОҢТҮСТІК ҚАЗАҚСТАН MEDISINA AKADEMIASY «Оңтүстік Қазақстан медицина академиясы» АҚ </p>		<p>  SOUTH KAZAKHSTAN MEDICAL ACADEMY АО «Южно-Казахстанская медицинская академия» </p>
Department of «Topographic anatomy and histology»		52-11
Lecture complex «Normal digestive and endocrine systems»		Page.1 of 7

LECTURE COMPLEX

Discipline: «Normal digestive and endocrine systems»

Discipline code: NDES 2208


Name and code of the EP: 6B10115-"Medicine"

Volume of training hours/credits: 15/0,5

Course and semester of study: 2/3

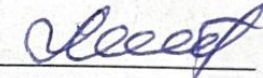
Length of lectures: 2 hours.


Shymkent, 2024

<div><div><div>ОҢТҮСТІК ҚАЗАҚСТАН</div><div>MEDISINA</div><div>AKADEMIASY</div><div>«Оңтүстік Қазақстан медицина академиясы» АҚ</div></div><div></div><div><div>SOUTH KAZAKHSTAN</div><div>MEDICAL</div><div>ACADEMY</div><div>АО «Южно-Казахстанская медицинская академия»</div></div></div>	
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The lecture complex was developed in accordance with the working curriculum of the discipline (syllabus) "Digestive and endocrine systems are normal" and discussed at the meeting of the Department of "Topographic anatomy and histology"

Protocol No. 1 from "03" 09 2024

Head of the department, c.m.s., acting professor  Murzanova D.A.

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Lecture No. 1.

1. Topic: Histological structure of the digestive system.

2. Purpose:

- Give an idea of the structure of the organs of the oral cavity and esophagus
- Give an idea of the fine structure and development of the stomach and intestines

3. Lecture abstracts:

The wall of the digestive tract consists of 4 membranes: creamy, creamy, muscular and external. The mucous membrane of the oral cavity is formed by the epithelium and a kind of plate. The muscle plate is missing. The tonsils are located on the border of the oral cavity and pharynx, they are part of the Pirogov-Waldeyer cycle of the pharynx.

The large salivary glands include the parotid (protein), submandibular (protein-cream) and submandibular (cream-protein) glands. All salivary glands consist of parenchyma (epithelium of the terminal sections and excretory tubules) and stroma (loose connective tissue, blood vessels and nerves).

The wall of the esophagus consists of 4 shells: cream, cream base, muscular and adventitious. They are involved in the movement of ingested food.

Small intestine: the duodenum (duodenum), small intestine and ileum consist of sections. Chemical digestion, cleavage and assimilation of nutrients take place here.

The wall of this intestine consists of 4 membranes: 1) cream shell; 2) cream base; 3) muscle and 4) husk..

The liver is externally covered with a connective tissue capsule and consists of liver particles. There is a central vein between each particle. The particle parenchyma consists of a liver composed of hepatocytes.

The pancreas is lined with a thin connective tissue membrane that distinguishes the exocrine part of the gland, consisting of acinuses and a system of excretory ducts, and the endocrine part, consisting of islets of Langerhans.

4. Illustrative material

- color micrographs of histopreparations
- electronograms, diagrams, drawings

5. Literature:


Main literature

1. Inderbir Singh. Textbook of Human Histology. With Color Atlas and Practical Guide/8th Edition. Jaypee Brothers Medical Publishers .2016.-302 p. Перевод Гистология человека
2. Dudek Ronald W. Embryology / Ronald W. Dudek. - 5th ed. - [s. l.] : Wolters Kluwer, 2014. - 158 p. Перевод заглавия: Эмбриология
3. Gartner Leslie P. Cell Biology and Histology / Leslie P. Gartner. - 8th ed. - [s. l.] : Wolters Kluwer, 2019. - 436 p. - (BRS. Board Review Series) Перевод заглавия: Клеточная биология и гистология

Additional literature

Textbook of Human Histology. Inderbir Singh /Sixth Edition/ Inderbir Singh 2010.-386 p.
Перевод Учебник по гистологии человека

Electronic publications

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1. ATLAS OF HISTOLOGY with Functional Correlations. Thirteenth Edition, Wolters Kluwer.2017.- 1102 p.
2. Theory and practice of Histological techniques.Eighth edition.Elsevier Limited.2019.-554 p.
3. Textbook of HumanHistology.With Color Atlas and Practical Guide/8 thEdition.Jaypee Brothers Medical Publishers .2011.-386 p.
4. USMLE Step 1.Lecture Notes 2018.by Kaplan.2018.-425 p/
5. Zhumabayeva, S.E., Boken, T.S.
Cytology and histology : Educational-methodical complex. . - Kokshetau: KGU, 2017. - 101 p.<http://rmebrk.kz/>
6. Бородулина, О.В.Цитология и гистология – Cytology and histology : Практикум. / Костанайский гос. педагогический университет им. У. Султангазина. - Костанай: КГПУ им.У.Султангазина, 2020. - 100 с. - <http://rmebrk.kz/>

6. Control questions (feedback):

- Sources and course of embryonic development of the stomach and intestines
- The structure of the stomach wall
- Salivary glands
- The structure of the small intestine
- The structure of the large intestine
- Sources and course of embryonic development of the liver and pancreas.
- Structures of the hepatic lobule
- Features of blood supply to the liver
- Gallbladder and biliary tract
- Pancreas. Features of the structure of the exocrine part
- Age-related features

Lecture No. 2.

1. Topic: Histological structure of the endocrine system.

2. Purpose:

To give an idea of the structure and development of the organs of the endocrine system.

- Give an idea of the development and fine structure of the liver and pancreas


3. Lecture abstracts:

The endocrine system regulates and coordinates the functions of the body, distinguishes between its central and peripheral organs. The central organs include the hypothalamus, pituitary gland, and pineal gland.

The hypothalamus is the center of the autonomic nervous system, as well as the central endocrine organ. The hypothalamus contains neurosecretory cells that synthesize hormones.

The pituitary gland consists of the adenohypophysis, the middle part and the neurohypophysis. While the neurohypophysis is a neurohemal organism (a derivative of the nervous system), the adenohypophysis is a hormone-processing part of the pituitary gland.

The pineal gland is a neuroendocrine organism. It contributes to the regulation of cyclic (repetitive over a certain period of time) processes, growth and reproduction processes,

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stabilization of homeostasis, in which endocrine cells – pinealocytes are located, and more neuroglial cells are located on the periphery.

Peripheral endocrine glands include the thyroid gland, parathyroid glands, and adrenal glands.

The endocrine system regulates and coordinates the functions of the body, distinguishes between its central and peripheral organs. The central organs include the hypothalamus, pituitary gland, and pineal gland.

The hypothalamus is the center of the autonomic nervous system, as well as the central endocrine organ. The hypothalamus contains neurosecretory cells that synthesize hormones.

4. Illustrative material

- color micrographs of histopreparations
- electronograms, diagrams, drawings

5. Literature:

Main literature

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6. Бородулина, О.В. Цитология и гистология – Cytology and histology : Практикум. / Костанайский гос. педагогический университет им. У. Султангазина. - Костанай: КГПУ им. У. Султангазина, 2020. - 100 с. - <http://rmebrk.kz/>

6. Control questions (feedback):

- * Morphofunctional characteristics of the endocrine system.
- * Hypothalamus.
- * Pituitary gland.
- * Epiphysis.
- * Thyroid gland.
- * Parathyroid gland

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- * * * Morphofunctional characteristics of the oral organs
- * The structure of the language
- * Salivary glands
- * The structure of the tonsils and esophagus.