METHODICAL RECOMMENDATIONS FOR THE PRACTICAL CLASSES

Name of discipline: «Propaedeutics of childhood diseases»
Code of discipline: PChD-3205-2
Name of EP - 6B10101 «General Medicine»
Amount of training hours /credits - 150h. (5 credits)
Course and semester of study – 3 course,VI semester
Practical classes: 35

Shymkent 2023y.

Methodical recommendation for practical classes are designed in accordance with the syllabus «Propaedeutics of childhood diseases-2» and discussed at meeting of the Department of Pediatrics-1

Protokol № 11 of 23.06.2023y.

Head of the Department, PhD **K.S. Kemelbekov**

№1

1. Theme: Clinical syndromes in pediatric neurology.

2.Purpose: teach etiology, pathogenesis, clinical manifestations of CNS syndromes in children of different age groups. Consolidate knowledge and skills in the diagnosis of the central nervous system (questioning, physical examination of the neurological status, data paraclinic study).

3. Learning objectives:

The student should know:

- method of questioning a patient with CNS diseases: main, secondary complaints, their pathogenesis;
- features of disease and life history: the role of predisposing factors in the development of CNS diseases;
- methods of examination of patients with CNS diseases: pathogenesis and diagnostic significance of detected changes;
- methods of examination of neurological status in children of different age groups;
- methodology to determine samples for coordination of movements;
- methodology for determining pathological reflexes;
- method of investigation of cranial nerve functions;
- methods of investigation of surface and tendon reflexes;
- instrumental and functional methods of CNS research.

The student should be able to:

- examine a child with a pathology of the nervous system: position in bed, coordination of movements and walking, examination of the head, face, torso, limbs, presence of tremors, forced position of the limbs, functions of cranial nerves, superficial and tendon reflexes, etc.;
- assess the neurological status of a sick child with a pathology of the nervous system;
- identify the sample on the coordination of movements;
- determination of pathological reflexes;
- evaluate cranial nerve function;
- evaluate surface and tendon reflexes;
- issue a report on the lesson and report the results of the study.

4. Main questions of the topic:

1. The main neurological syndromes in children of different age groups.
2. Hemorrhagic and ischemic stroke syndrome in children of different age groups.
3. Convulsive syndrome (epilepsy).
4. Meningeal syndrome (meningitis), clinical and laboratory diagnosis.

5. The main forms/methods/technologies of training to achieve the final result of the discipline: discussion of the lesson topic, mastering practical skills

6. Types of control to assess the level of achievement of the final result of the discipline: Evaluation of the oral survey; Testing.

7. Literature:

Basic:

1. Mazurin, A. V. Propaedeutics of childhood diseases. 1 volume [: textbook / - Almaty : "Evero" , 2017. - 144 p
2. Mazurin, A. V. Propaedeutics of childhood diseases. 2 volume] : textbook / - Almaty : "Evero" , 2017. - 172 p.

3. Mazurin, A. V. Propaedeuutics of childhood diseases. 3 volume [: textbook / - Almaty : "Evero" , 2017. - 140 p.
4. Mazurin, A. V. Propaedeutics of childhood diseases. 4 volume: textbook / - Almaty : "Evero" , 2017. - 120 p.
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8. Issayeva, L. A. Childhood diseases. IV part [: textbook / - Almaty: "Evero", 2017. - 185 p.

Additional:

1.Karen J. marcdante. Robert M. Kligeman. Nelson “Essential of Pediatrics” 7th edition 2015.
2.Joseph J.Zorc Schwartz`s “ Clinical Handbook of Pediatrics” fifth edition 2013.

Electronic resources:

1. Karen J. marcdante. Robert M. Kligeman. Nelson “Essential of Pediatrics” 7th edition 2015. el disc (CD-ROM).

8.Control:

a)tests:

1. For a healthy, full-term newborn, the following unconditioned reflexes are characteristic, except:
A) Babkin's palm-mouth reflex
B) upper grasping reflex /Robinson/
C) Rossolimo reflex
D) crawling reflex /according to Bauer /
E) Babinski reflex
2. A newborn child has all the seams of the skull open, except for:
A) swept
C) frontal
C) coronary
D) occipital
E) large fontanel
3. The brain of a newborn child in comparison with adults has the following features:
A) frontal and occipital lobes are relatively smaller
C) frontal lobes are relatively larger and the occipital lobes are smaller.
C) frontal and occipital lobes are developed, as in adults
D) cerebellum is poorly developed; the lateral ventricles are large
E) cerebellum is well developed, and the lateral ventricles are small
4. Confirm the diagnosis of intracranial hemorrhage it is necessary to conduct the following studies:
A) determine blood sugar levels
C) explore the fundus of the eye
C) NSG / neurosonography /
D) X-ray of the skull
E) lumbar puncture
5. The syndromes of the recovery period of perinatal CNS damage do not include:
A) hypertensive-hydrocephalic
B) vegeto-visceral disorders
C) meconium aspiration syndrome
D) syndrome of movement disorders
E) delayed psychomotor development
6. By traumatic damage to the nervous system do not include:

A) intracranial birth injury
B) subarachnoid hemorrhage
C) combined ischemic and hemorrhagic lesions of the central nervous system / hypoxic /
D) spinal cord hemorrhage / sprain, rupture, tear / with spinal injury
E) damage to the phrenic nerve
7. To confirm the diagnosis of intracranial hemorrhage, it is necessary to conduct the following examinations, except:
A) determine blood sugar levels
B) NSG / neurosonography /
C) lumbar puncture
D) nuclear magnetic resonance examination of the head
E) explore the fundus of the eye
8. In peri- and intraventricular hemorrhages of grade II – III in newborns, the clinical picture does not reveal:
A) convulsions
B) bulging and stress of a large fontanel
C) increase in motor activity
D) decrease in hematocrit
E) hypotonia
9. The brain of a newborn child in relation to body weight:
A) small size, large furrows and convolutions are poorly defined, of small depth
B) large sizes, large furrows and gyrus well expressed, large depth
C) large sizes, large furrows and convolutions are well defined, of small depth and height
D) small size, large grooves and convolutions are poorly expressed, of great depth
E) large sizes, large furrows and gyri are poorly defined, of small depth
10. Which of the following symptoms is not pathological for young children?
A. Kerning symptom
B. symptom Brudzinsky upper
C. symptom Brudzinsky average
D. symptom Brudzinsky lower
E. symptom of Lesage

Answers:

1-C, 2-B, 3-Д, 4-C, 5-C, 6-E, 7-A, 8-C, 9-C, 10-A.

b) situational tasks:

Task 1

A child of 10 months (weight 10 kg), in serious condition, was delivered to the doctor of the medical center.

When interviewing the mother, it was possible to establish that the child fell ill 2 days ago. The disease began with an increase in body temperature to subfebrile numbers, a small serous discharge from the nose, catarrhal conjunctivitis. Then the child's condition deteriorated, the body temperature rose to 39.5 degrees, the child became sluggish, refused to eat, vomiting appeared not associated with the ingestion of food and water, once clonic-tonic convulsions.

Objectively: upon examination, the general condition of the child is severe. Sluggish, crying. Body temperature is 39.2 degrees. The child lies on his back with arms extended along the body and legs bent at the knee and hip joints. Tilting of the head back, bulging of a large fontanel, is noted, sometimes convulsive twitching of the extremities occurs. The skin is pale, dry. Visible mucous

clear, pink. In the throat moderate hyperemia of the posterior pharyngeal wall. In the lungs puerile breathing is heard, no wheezing. Percussion is determined pulmonary sound.
With auscultation, the heart sounds are muffled, rhythmic, heart rate = 138 per minute. The abdomen is soft, painless on palpation. The liver and spleen are not enlarged. Pees a little, the urine is clear, yellow. The chair was once decorated for the last two days.
Questions:
1. To select the leading clinical syndrome?
2. What disease can I think about?

Task 2

A child of the age of 3 months (weight 6 kg), in a serious condition, with high body temperature, vomiting and jerky limb twitching, was delivered to the doctor of the medical center.
From the anamnesis it was possible to establish that the boy fell ill acutely. There were mucous discharge from the nose, sneezing, a rare dry cough, anxiety, which soon gave way to lethargy, lethargy, body temperature, increased to 39.8 degrees. Against the background of high temperature, vomiting appeared, followed by jerking of limbs. The child is under observation at a neurologist for perinatal damage to the central nervous system.
Objectively: upon examination, the general condition is severe, sluggish. Meningeal symptoms are negative. A large spring erupts. Drying reflexes are high, there are no focal pathological symptoms on the part of the CNS. Pale skin with a marble pattern. In the throat is determined by the hyperemia of the posterior pharyngeal wall, arches. From the nose bright mucous discharge. Visible mucous membranes are clean, pink. In the lungs breathing hard, no wheezing, BH = 66 per minute. Auscultative heart sounds are muffled, tachycardia up to 164 per minute. The abdomen is soft, painless on palpation. The liver and spleen are not enlarged. The chair was once a day, decorated.
Questions:
1. To select the leading clinical syndrome?
2. What disease can I think about? Possible complications?

Answers

Task 1
1. Convulsive syndrome.
2. Meningitis.

Task 2
1. Neurotoxic syndrome.
2. Acute respiratory viral infection. Hypoxic coma, acute adrenal insufficiency.

№2

1. Theme: Pathological syndromes in pediatric pulmonology

2. Purpose: to teach the etiology, pathogenesis, clinical manifestations of pulmonary tissue compaction syndrome, bronchial patency disorders, the presence of a cavity in the lung, fluid accumulation in the pleural cavity, laboratory and instrumental diagnosis of these syndromes. Consolidate knowledge and skills in the diagnosis of these syndromes (questioning, physical examination data, palpation, percussion, auscultation; data paraclinic study).

3. Learning objectives:

The student should know:

• method of questioning the patient violations of bronchial patency and pneumonia: the main, minor complaints, their pathogenesis;

- features of disease and life history: the role of predisposing factors in the development of diseases of the respiratory system;
- methods of examination of patients with bronchial patency disorders and pulmonary tissue compaction syndrome: pathogenesis and diagnostic significance of the changes detected;
- technique of palpation of a chest;
- technique for percussion of the chest, comparative and topographic percussion of lungs;
- pathological changes of auscultatory sounds in the syndrome seal lung tissue and the violation of bronchial patency
- instrumental and laboratory methods in pulmonology and their significance for diagnosis

The student should be able to:

- make inquiries, identify complaints of patients with respiratory diseases: cough, chest pain, shortness of breath, suffocation, etc.
- examine the patient, noting the color of the skin, the shape of the chest, its symmetry, participation in the act of breathing, and other signs;
- palpate the chest and assess the diagnostic value of the changes detected;
- perform comparative percussion and evaluate the diagnostic value of the changes detected;
- determine the lower and upper limits of the lungs from the front and rear;
- determine active mobility of the lower pulmonary margin;
- correctly evaluate the data obtained by topographic percussion;
- identify auscultation lung sounds and to distinguish adverse respiratory noise;
- correctly estimate obtained by auscultation lung sounds data;
- interpret laboratory analyses;
- issue a report on the lesson and report the results of the study.

4. Main questions of the topic:

1. Predisposing factors and causes leading to the development of bronchial patency disorders in children of different age groups.
2. Clinical manifestations of bronchial patency syndrome.
3. Syndrome of increased airiness of pulmonary tissue: clinic, diagnosis.
4. Predisposing factors and causes leading to the development of pulmonary tissue compaction syndrome in children of different age groups.

5. The main forms/methods/technologies of training to achieve the final result of the discipline: discussion of the lesson topic, mastering practical skills

6. Types of control to assess the level of achievement of the final result of the discipline: Evaluation of the oral survey; Testing.

7. Literature:

Basic:

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Electronic resources:

1. Karen J. marcdante. Robert M. Kligeman. Nelson “Essential of Pediatrics” 7th edition 2015. el disc (CD-ROM).

8. Control:

a)questions:

1. The main symptoms and causes of inflammatory lesions of the trachea, bronchi, bronchioles in children. Age features of their structure, value for development of pathology. Criteria for assessing the severity of respiratory diseases in children.
2.Bronchial obstruction syndrome in children. Causes and mechanisms of occurrence, clinical manifestations, changes in FVD. Criteria for assessing the severity of respiratory diseases in children.
3.The main symptoms and causes of inflammatory lesions of the lung parenchyma and pleura in children. Age peculiarities of lobular and segmental structure of lungs in children, significance for understanding pathology. Age features of the lower and upper lung boundaries in children, the boundaries between the lobes of the lungs.
4.Respiratory failure syndrome in children. Causes, severity, clinical, laboratory and instrumental manifestations. Criteria for assessing the severity of respiratory diseases in children.
5.Diagnostic capabilities of instrumental and functional methods of research of respiratory organs in children.
6.The concept of congenital pathology of the respiratory system. Stages of formation of the respiratory system at the prenatal stage. The mechanism of the first breath. Adaptation of breathing immediately after birth.

b) tests:

1. When tracheobronchitis children complain of pain:
A) behind the sternum
B) in the throat
C) in the side
D) in the ear
E) in the back
2. When auscultation of children with acute simple bronchitis is detected:
A) hard breathing and scattered dry and / or medium-sized wheezing
B) diffuse fine wheezing
C) local finely wheezing
D) local weakening of breath
E) diffuse weakening of breath
3. For acute obstructive bronchitis are characterized by:
A) inspiratory dyspnea
B) expiratory dyspnea
C) moist fine wheezing
D) dull percussion sound
E) increase the size of the heart shadow on the radiograph
4. The etiological factors of acute obstructive bronchitis are most often:

A) pneumotropic bacterial pathogens
B) Gram-negative flora
C) cold air
D) allergens
E) respiratory viruses
5. For acute obstructive bronchitis is characterized by:
A) inspiratory dyspnea
B) expiratory dyspnea
C) moist fine wheezing
D) dull percussion sound
E) focal shadows on the radiograph
6. Bronchial hyperreactivity is:
A) inadequately strong bronchoconstrictor reaction to specific and nonspecific triggers
B) increased susceptibility of the lower respiratory tract to infectious pathogens
C) the tendency to inadequate formation of mucus by the goblet cells of the bronchial mucosa
D) recurrent lower respiratory diseases
E) change in the rheological properties of sputum
7. At auscultation of children with acute bronchiolitis are heard:
A) local finely wheezing;
B) local weakening of breath;
C) hard breathing
D) diffuse dry rales
E) diffuse fine bubbling rales
8. Acute pneumonia is considered, resolving in time to:
A) 2 weeks
B) 6 to 8 weeks
C) 3 months
D) 4 months
E) 6 months.
9. The main symptoms of pneumonia in the early days of the disease are:
A) expiratory dyspnea
B) rhinitis
C) boxed percussion sound
D) dry rales
E) signs of infectious intoxication, local weakening of breathing
10. For lobar pneumonia, the following symptoms are characteristic except:
A) acute onset without prior catarrhal manifestations on the part of the VDP
B) the blush on the cheek on one side
C) pain in the side
D) chills
E) dry rales on both sides
11. A special feature of bronchial asthma in young children is:
A) the expiratory character of suffocation
B) swelling of the chest
C) identification of wet wheezing during auscultation and more productive cough
D) boxed percussion sound
E) the participation of auxiliary muscles in the act of breathing

12. Functional indicators confirming the presence of bronchial obstruction in children over 5 years old are:
A) indicator FEV1 from 80 to 100% of the required values
B) the FEV1 indicator is less than 80% of the required values
C) decrease in lung capacity
D) negative test with beta2-agonist
E) daily lability of the bronchi less than 20%
13. A peak flow meter is:
A) A device for monitoring heart rate
B) The device for carrying out inhalations
C) A device for determining the blood gas composition
D) A device for determining the peak expiratory flow rate.
E) A device for monitoring respiratory rate in young children.
14. Examination of respiratory function with a spirograph is possible for children:
A) first year of life
B) at any age
C) from 3 years
D) from 6 years
E) from 10 years
15. Broncho-obstructive syndrome in chronic bronchitis results from:
A) edema of the bronchial mucosa;
B) hypercrinia and discrinia of the bronchial glands;
C) fibrous changes in the walls of the bronchi;
D) only the options are correct, but also in;
E) the options are correct, a, b, c.

Answers:
1-A, 2-A, 3-B, 4-E, 5-B, 6-A, 7-E, 8-B, 9-E, 10-E, 11-C, 12-B, 13- D, 14-D, 15-D.

№3

1. Theme: Pathological syndromes in pediatric pulmonology. Respiratory failure syndrome in COVID-19.

2. Purpose: to teach the etiology, pathogenesis, clinical manifestations of acute and chronic respiratory failure syndromes in children, laboratory and instrumental diagnosis of it. Consolidate knowledge and skills in the diagnosis of these syndromes (questioning, physical examination data, palpation, percussion, auscultation; data paraclinic study).

3. Learning objectives:

The student should know:

- method of questioning the patient violations of bronchial patency and pneumonia: the main, minor complaints, their pathogenesis;
- features of disease and life history: the role of predisposing factors in the development of diseases of the respiratory system;
- methods of examination of patients with bronchial patency disorders and pulmonary tissue compaction syndrome: pathogenesis and diagnostic significance of the changes detected;
- technique of palpation of a chest;
- technique for percussion of the chest, comparative and topographic percussion of lungs;

• pathological changes of auscultatory sounds in the syndrome seal lung tissue and the violation of bronchial patency
- instrumental and laboratory methods in pulmonology and their significance for diagnosis

The student should be able to:
- make inquiries, identify complaints of patients with respiratory diseases: cough, chest pain, shortness of breath, suffocation, etc.
- examine the patient, noting the color of the skin, the shape of the chest, its symmetry, participation in the act of breathing, and other signs;
- palpate the chest and assess the diagnostic value of the changes detected;
- perform comparative percussion and evaluate the diagnostic value of the changes detected;
- determine the lower and upper limits of the lungs from the front and rear;
- determine active mobility of the lower pulmonary margin;
- correctly evaluate the data obtained by topographic percussion;
- identify auscultation lung sounds and to distinguish adverse respiratory noise;
- correctly estimate obtained by auscultation lung sounds data;
- interpret laboratory analyses;
- issue a report on the lesson and report the results of the study.

4. Main questions of the topic:
1.Respiratory failure in children of different age groups. Definition and clinical signs.
2.Varieties of ventilation respiratory failure and their diagnosis.
3. Stage (degree) of chronic (acute) respiratory failure and their diagnosis.

5. The main forms/methods/technologies of training to achieve the final result of the discipline: discussion of the lesson topic, mastering practical skills

6. Types of control to assess the level of achievement of the final result of the discipline: Evaluation of the oral survey; Testing.

7. Literature:

Basic:
9. Mazurin, A. V. Propaedeutics of childhood diseases. 1 volume [: textbook / - Almaty: "Evero", 2017. - 144 p
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Electronic resources:
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8. Control:

a)questions:

1. The main symptoms and causes of inflammatory lesions of the trachea, bronchi, bronchioles in children. Age features of their structure, value for development of pathology. Criteria for assessing the severity of respiratory diseases in children.
2.Bronchial obstruction syndrome in children. Causes and mechanisms of occurrence, clinical manifestations, changes in FVD. Criteria for assessing the severity of respiratory diseases in children.
3.The main symptoms and causes of inflammatory lesions of the lung parenchyma and pleura in children. Age peculiarities of lobular and segmental structure of lungs in children, significance for understanding pathology. Age features of the lower and upper lung boundaries in children, the boundaries between the lobes of the lungs.
4.Respiratory failure syndrome in children. Causes, severity, clinical, laboratory and instrumental manifestations. Criteria for assessing the severity of respiratory diseases in children.
5.Diagnostic capabilities of instrumental and functional methods of research of respiratory organs in children.
6.The concept of congenital pathology of the respiratory system. Stages of formation of the respiratory system at the prenatal stage. The mechanism of the first breath. Adaptation of breathing immediately after birth.

b) tests:

1. Box tone of the percussion sound over the lungs is NOT typical for...
A. syndrome of fluid accumulation in the pleural cavity
B. bronchial obstruction syndrome
C. small- focal infiltration syndrome
D. emphysema of the lungs
E. pneumothorax
2. Downward shift of the lung boundaries is observed when...
F. bronchial obstruction syndrome
G. large- focal infiltration syndrome
H. croup syndrome
I. lesions of middle respiratory tract syndrome
J. lesions of upper respiratory tract syndrome
3. Local weakening of vesicular respiration is observed at...
A. large-focal infiltration syndrome
B. bronchial obstruction syndrome
C. croup syndrome
D. lesions of middle respiratory tract syndrome
E. lesions of upper respiratory tract syndrome
4. Syndrome of fluid accumulation in the pleural cavity is NOT typical:
A. dullness-tympanic sound over the affected area
B. lag of the affected half in the act of breathing
C. chest asymmetry
D. weakening of breathing over the affected area
E. chest pain on the affected side
.5. For syndrome of air accumulation in the pleural cavity is characteristic:
A. weakening of breathing in auscultation
B. dullness of percussion sound
C. increased bronchophony
D. increased voice tremor
E. amphoric respiration in auscultation
6. Lesions of middle respiratory tract syndrome is NOT typical

A. dullness of percussion sound
B. hard breathing
C. dry rales
D. moderate signs of intoxication
E. dry cough

7. Pathological bronchial respiration is determined by the syndrome of …
A. large- focal infiltration
B. small- focal infiltration
C. lesions of the middle respiratory tract
D. air accumulations in the pleural cavity
E. increased airiness of lung tissue

8. A 9-year-old boy became acutely ill after hypothermia, temperature up to 39.0°C, dry painful cough, and headache. On examination: serious condition. The skin is pale, with a "mramor" pattern. The mucous membranes are clean and dry. Pharynx is hyperemic. Breath grunting. RR 34/min. The chest is swollen, the right half is lagging behind in breathing. Percussion: to the right, below the shoulder area in percussion dullness sound. Auscultation: breathing hard, over lesions area sound is weakened, no rales. The heart tones are loud, no murmur, HR-124/min. The abdomen is soft and painless. The liver is at the edge of the costal arch, spleen is not palpated. Your preliminary clinical syndrome:
A. syndrome of fluid accumulation in the pleural cavity
B. syndrome of increased airiness of the lung tissue
C. syndrome of accumulation of air in pleural cavity
D. syndrome of violations of bronchial patency
E. pulmonary compaction syndrome

9. Patient N., 3 years 9 months., went to the emergency department with complaints of coughing, temperature up to 38.2°C, shortness of breath. Objective: condition is moderate severity. Child is excited. The skin is clean, the body temperature is 37.5°C, cyanosis of the nasolabial triangle, hyperemia of the pharynx. The chest is normal shape and auxiliary muscles are noticeably involved in the act of breathing. Breath whistling, percussion sound is tympanic, RR-45/min. Auscultation: against the background of an elongated exhalation, diffuse dry whistling rales are heard from both sides, and various-sized wet rales are heard all fields. The borders of the heart are not expanded, the tones are rhythmic, muted, HR-138/min. The abdomen is soft and painless. The liver acts from under edge of a costal arch on 1.5 cm. Feces regular, diuresis is normal. Based on the available data, the following clinical syndromes can be distinguished in a patient:
A. violations of bronchial patency, respiratory failure
B. compaction of lung tissue, respiratory failure
C. accumulation of fluid in the pleural cavity, violations of bronchial patency
D. air accumulations in the pleural cavity, compaction of lung tissue
E. increased airiness of the lung tissue, accumulation of fluid in the pleural cavity

10. In atelectasis syndrome over a compressed lung is determined:
A. weakened vesicular respiration
B. hard breathing
C. bronchial respiration
D. enhanced vesicular respiration
E. increased voice tremor

Answers:
1-A, 2-A, 3-B, 4-E, 5-B, 6-A, 7-E, 8-B, 9-E, 10-E, 11-C, 12-B, 13- D, 14-D, 15-D.

№4
1. Theme: Clinical syndrome of acute and chronic cardiovascular failure in children.

2. Purpose: to teach etiology, pathogenesis, clinical manifestations of acute and chronic heart and vascular insufficiency in children. Consolidate knowledge and skills in the diagnosis of these syndromes (questioning, physical examination data, palpation, percussion, auscultation; data paraclinic study).

3. Learning objectives:

The student should know:

- method of questioning a patient with heart and vascular insufficiency: the main, minor complaints, their pathogenesis;
- features of disease and life history: the role of predisposing factors in the development of diseases of the heart system;
- methods of examination of patients with acute heart failure: pathogenesis and diagnostic significance of the detected changes;
- palpation of the heart and large vessels;
- technique of auscultation of the heart (the position of the doctor and the patient, the position of the stethoscope, the main and additional points of auscultation);
- characteristics of the basic heart tone in children: the difference between tone I and II;
- functional and organic heart murmurs and extracardial murmurs;
- instrumental and functional methods of research in diseases of the cardiovascular system in children.

The student should be able to:

- make inquiries, identify complaints of a sick child or parent with diseases of the cardiovascular system;
- examine the patient: position in bed, skin color and visible mucous membranes, cyanosis, swelling, pulsation and swelling of the large vessels of the neck, the shape of the chest, a change in the heart, the presence of a heart hump, cardiac shock, deformation of the musculoskeletal system and other signs;
- palpate the heart and large vessels and assess the diagnostic value of the changes detected;
- measure blood pressure in children;
- conduct auscultation of the heart in children;
- correctly evaluate the data obtained in auscultative heart sounds;
- decipher ECG study in children;
- interpret laboratory analyses;
- issue a report on the lesson and report the results of the study.

4. Main questions of the topic:

1. Predisposing factors and causes leading to the development of acute heart failure in children of different age groups.
2. Clinical manifestations of acute heart failure
3. Questioning and examination of a sick child or parent, myocardial diseases and heart failure in children of different age groups.
4. The main nosological forms of myocardial diseases: myocarditis, myocardiopathy, dystrophy, myocardiosclerosis. The main symptoms of myocardial damage: cardiac arrhythmias, heart failure, thromboembolic complications.
5. Classification of myocardial diseases. Signs of acute and chronic circulatory failure in children of different age groups.

5. The main forms/methods/technologies of training to achieve the final result of the discipline: discussion of the lesson topic, PBL

6. Types of control to assess the level of achievement of the final result of the discipline: Evaluation of the oral survey; Testing.

7. Literature:

Basic:

1. Mazurin, A. V. Propaedeutics of childhood diseases. 1 volume [: textbook / - Almaty : "Evero" , 2017. - 144 p
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7. Issayeva, L. A. Childhood diseases. III part [: textbook / - Almaty: "Evero" , 2017. - 140 p.
8. Issayeva, L. A. Childhood diseases. IV part [: textbook / - Almaty: "Evero", 2017. - 185 p.

Additional:

1.Karen J. marcdante. Robert M. Kligeman. Nelson “Essential of Pediatrics” 7th edition 2015.
2.Joseph J.Zorc Schwartz`s “ Clinical Handbook of Pediatrics” fifth edition 2013.

Electronic resources:

1. Karen J. marcdante. Robert M. Kligeman. Nelson “Essential of Pediatrics” 7th edition 2015. el disc (CD-ROM).

8.Control:

a)tests:

1. Short-term loss of consciousness due to sudden diffuse insufficiency of blood supply to the brain:
A) collapse
B) to faint
C) cardiac asthma
D) acute heart failure

2. Clinical manifestation of acute vascular insufficiency, accompanied by a decrease in blood pressure, but without loss of consciousness:
A) collapse
B) to faint
C) cardiac asthma
D) acute heart failure

3. Pain in the heart in children is more often caused by:
A) heart disease
B) arterial hypertension
C) neurogenic factors
D) hereditary diseases
E) oncological diseases

4. When measuring blood pressure, this procedure should be carried out:
A) once
B) twice
C) three times
D) four times
E) five times

5. For functional disorders of the rhythm and conduction of the heart is characterized by:
A) progressive course
B) the presence of complaints and clinical symptoms
C) impaired hemodynamics
D) transient character
E) signs of damage to the heart
6. The main cause of tachycardia in children is:
A) vagotonia
B) sympathicotonia
C) hypothyroidism
D) intracranial hypertension
E) active sports
7. Bradycardia is more common with:
A) fever
B) dehydration
C) thyrotoxicosis
D) increasing intracranial pressure
E) treatment with glucocorticosteroids
8. A sign of heart failure is not:
A) cold limbs
B) tachycardia
C) tachypnea
D) hepatomegaly
E) craniotabes
9. One of the main causes of myocardial heart failure in newborns is:
A) aortic stenosis
B) asphyxia during labor
C) a triatrial heart
D) coarctation of the aorta
E) aorto-pulmonary compound
10. One of the main causes of hemodynamic heart failure in newborns is:
A) cardiomyopathy
B) abnormal discharge of the left coronary artery from the pulmonary artery
C) myocarditis
D) major defect of the interventricular septum
E) postoperative dysfunction of the heart muscle

Standards of answers:
1-B, 2-A, 3-C, 4-C, 5-D, 6-B, 7-D, 8-E, 9-B, 10-D.
b) situational tasks
Task 1
A student at school received a blow to the solar plexus, he felt a darkening in his eyes. On examination, paleness of the skin and cold sweat are noted. Breathing is frequent, superficial, thread-like pulse, blood pressure 60 / 20mm Hg
Solve the problem by answering the questions posed.
1. What is the condition of the child?
2. What symptom indicates this condition?

3. What is the cause of this condition?

Task №2

A child of 13 years has increased body temperature to 38.5 ° C. The disease began with a cold, which was later joined by a headache resistant to analgesics. On examination: breath frequently, superficial, BP-60/30, HR-128 in 1 minute. On the skin of the trunk and extremities, there is a star-shaped confluent hemorrhagic rash with central areas of necrosis.

Solve the problem by answering the questions posed.

1. What is the complication of the cardiovascular system?
2. What symptom indicates this condition?

Answers:

Task 1

1. Acute heart failure
2. Pallor of the skin, cold sweat, breathing is frequent, superficial, pulse is thready, blood pressure is 60/20 mm hg.
3. A blow to the solar plexus.

Task 2

1. Acute heart failure
2. The body temperature to 38,5 ° C breath frequently, superficial, BP-60/30 mm hg, HR-128 in 1 minute. stellate confluent hemorrhagic rash with central areas of necrosis

№5

1. Theme: Congenital and acquired carditis syndrome in children of different age groups. Diagnostic value.

2. Purpose: to teach etiology, pathogenesis, clinical manifestations of congenital and acquired carditis syndrome in children of different age groups, laboratory and instrumental diagnosis of these syndromes. Consolidate knowledge and skills in the diagnosis of these syndromes (questioning, physical examination data, palpation, percussion, auscultation; data paraclinic study).

3. Learning objectives:

The student should know:

- method of questioning a patient with congenital and acquired carditis syndrome: the main, minor complaints, their pathogenesis;
- features of disease and life history: the role of predisposing factors in the development of carditis;
- methods of examination of patients with congenital carditis syndrome: pathogenesis and diagnostic significance of the changes detected;
- methods of examination of patients with acquired carditis syndrome: pathogenesis and diagnostic significance of the changes detected;
- palpation of the heart and large vessels;
- heart percussion technique in children of different age groups;
- technique of auscultation of the heart (the position of the doctor and the patient, the position of the stethoscope, the main and additional points of auscultation);
- characteristics of the basic heart tone in children: the difference between tone I and II;
- functional and organic heart murmurs and extracardial murmurs and their differences;

- mechanism of pericardial rub and the contrast of pleural friction rub;
- instrumental and functional methods of investigation in congenital and acquired carditis in children.

The student should be able to:

- make inquiries, identify complaints of a sick child or parent with diseases of the cardiovascular system;
- examine the patient: position in bed, skin color and visible mucous membranes, cyanosis, swelling, pulsation and swelling of the large vessels of the neck, the shape of the chest, a change in the heart, the presence of a heart hump, cardiac shock, deformation of the musculoskeletal system and other signs;
- palpate the heart and large vessels and assess the diagnostic value of the changes detected;
- measure blood pressure in children;
- conduct percussion of the heart in children;
- conduct auscultation of the heart in children;
- correctly evaluate the data obtained in auscultative heart sounds;
- decipher ECG study in children;
- interpret laboratory analyses;
- issue a report on the lesson and report the results of the study.

4. Main questions of the topic:

1. Predisposing factors and causes leading to the development of congenital carditis syndrome in children of different age groups.
2. Congenital carditis in children. Clinical manifestations of the disease. Features of the course in children of different age groups.
3. Predisposing factors and causes leading to the development of acquired carditis syndrome in children of different age groups.
4. Acquired carditis in children. Clinical manifestations of the disease.
5. Instrumental and functional methods of investigation in congenital and acquired carditis in children.

5. The main forms/methods/technologies of training to achieve the final result of the discipline: discussion of the lesson topic, TBL

6. Types of control to assess the level of achievement of the final result of the discipline: Evaluation of the oral survey; Testing.

7. Literature:

Basic:

1. Mazurin, A. V. Propaedeutics of childhood diseases. 1 volume [: textbook / - Almaty : "Evero" , 2017. - 144 p
2. Mazurin, A. V. Propaedeutics of childhood diseases. 2 volume] : textbook / - Almaty : "Evero" , 2017. - 172 p.
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8. Issayeva, L. A. Childhood diseases. IV part [: textbook / - Almaty: "Evero", 2017. - 185 p.

Additional:

1.Karen J. marcdante. Robert M. Kligeman. Nelson “Essential of Pediatrics” 7th edition 2015.
2.Joseph J.Zorc Schwartz`s “ Clinical Handbook of Pediatrics” fifth edition 2013.

Electronic resources:

1. Karen J. marcdante. Robert M. Kligeman. Nelson “Essential of Pediatrics” 7th edition 2015. el disc (CD-ROM).

8. Control:

a) tests:

1. The most characteristic complaints of children with heart disease are: 1. Weakness; 2. fatigue on exertion; 3. Dyspnea; 4. change in appetite; 5. change the color of the skin.
A-1,3;
B-1,2,5;
C-1,2,3;
D-3,5;
E-1,2,3,5:
2. Carditis in newborns most often:
A. viral origin.
B. bacterial origin.
C. unclear etiology.
D. hypoxic origin.
3. The clinical signs of developmental carditis are:
A. violation of the general condition
B. Circulatory disorders
C. expansion of the borders of the heart
D. deafness of heart tones
E. All of the above.
4. With carditis in young children, all the signs are observed, except:
A. severe course
B. extrasistyle
C. rapid development of circulatory failure
D. increased blood pressure
E. cardiomegaly
5. For carditis typical all laboratory parameters, except:
A. moderate leukocytosis.
B. leukopenia.
C. slight increase in sialic acids
D. moderate ESR acceleration.
E. high titer ASL-O
6. Total cyanosis of the skin, mucous lips of a newborn, which lasts for more than 3 hours, may be due to all of the listed conditions, except:
A. pulmonary pathology
B. Encephalopathy
C. carditis
D. congenital heart disease
7. For acquired carditis is uncharacteristic:
A. Thickening of the nail phalanges of the hands and feet in the form of “drumsticks”

B. change nails in the form of "watch glasses"
C. persistent cyanosis
D. pulse increase
E. All of the above.
8. To clarify the diagnosis, carditis requires:
A. history of prenatal development
B. information of heredity
C. Echocardiography and phonocardiography
D. radiography of the chest
E. All of the above.
9. The diagnostically significant symptom of myocarditis in children is:
A. increased blood pressure
B. wheezing in the lungs.
C. appearance of systolic murmur in the apex of the heart
D. increase the sonority of heart tones
E. febrile fever with chills.
10. Hemodynamic disorders in congenital heart defects are, in addition to:
A. with enrichment of the pulmonary circulation
B. with depletion of the pulmonary circulation
C. with the depletion of the patient's circulation
D. with the enrichment of the patient circle of blood circulation
Answers:
1-E, 2-A, 3- E, 4- D, 5-E, 6- C, 7- D, 8- E, 9- C, 10- D.

Situational task:
Task 1
Patient R., 1 year and 3 months old, was admitted to the department with complaints of vomiting, abdominal pain, fatigue, a significant decrease in appetite, a loss of body weight of 2 kg for 2 months.
From the anamnesis it is known that the boy is from the second pregnancy and childbirth, proceeding physiologically. Developed 10 months by age. He walks from 9 months, he added good weight. Always was mobile, active. At the age of 1 year, 2 months had ARVI (?). The disease was accompanied by moderate catarrhal phenomena for 5 days (runny nose, cough), at the same time, liquid stools were noted, the temperature was -37.2-37.5 ° C for 2 days. From this time on, the boy became lethargic, vomiting was noted periodically, mostly at night there were bouts of anxiety, wet cough. He began to get tired of "walking legs." Significantly decreased appetite. Appealed to the doctor, the condition is regarded as asthenic syndrome. In general, a blood test: Hb - 100 g / l, leukocytes - 6.4 × 109 / l, p / 2 -2%, s - 43%, e - 1%, b - 1%, m - 3%, l - 40%, ESR - 11 mm Hg. With a diagnosis of "iron deficiency anemia," the child was hospitalized. On the eve of admission, the boy's condition deteriorated sharply: he was extremely restless, repeated vomiting was noted, hepatomegaly was detected up to +7 cm from under the costal arch.
At admission the condition is severe. There are lethargy, weakness, no appetite, pale skin, cyanosis of the nasolabial triangle, edema on the legs. In the lungs harsh breathing, in the lower sections - moist rales. BH - 60 in 1 minute. The boundaries of relative cardiac dullness extended to the left to the anterior axillary line. Deaf tones, systolic murmur at the apex, heart rate - 160 beats per minute. The liver is +7 cm along the right mid-clavicular line, the spleen is +2 cm. It urinates a little, the chair is decorated.

Questions:
1. What syndromes can be distinguished from a patient based on the available data?
2. What is the disease in this patient?
3. Presumably, what is the etiology of the disease?
4. What additional laboratory and instrumental studies should be conducted to clarify the etiology of the disease?

Answers:

Task1

1. Acquired carditis syndrome, heart failure syndrome
2. Non-rheumatic carditis.
3. Presumably, the disease viral etiology.
4. ECG, echocardiography, chest x-ray with the definition of CTD, PCG, biochemical blood analysis (with the definition of LDG1 and LDG2, activity of vitamin-oxalate peroxidase, activity of CPK.

№6

1. Theme: Clinical syndromes of valvular lesions in children. Syndromes of the most common congenital heart defects.

2. Purpose: to teach etiology, pathogenesis, clinical manifestations of valvular disease syndrome in children, laboratory and instrumental diagnosis of these syndromes. Consolidate knowledge and skills in the diagnosis of these syndromes (questioning, physical examination data, palpation, percussion, auscultation; data paraclinic study).

3. Learning objectives:

The student should know:

- method of questioning a patient with heart and vascular insufficiency: the main, minor complaints, their pathogenesis;
- features of disease and life history: the role of predisposing factors in the development of diseases of the heart system;
- methods of examination of patients with heart failure in congenital heart disease: pathogenesis and diagnostic significance of the detected changes;
- methods of examination of patients with vascular insufficiency: pathogenesis and diagnostic significance of the detected changes;
- palpation of the heart and large vessels;
- heart percussion technique in children of different age groups;
- technique of auscultation of the heart (the position of the doctor and the patient, the position of the stethoscope, the main and additional points of auscultation);
- characteristics of the basic heart tone in children: the difference between tone I and II;
- semiotics functional and organic heart murmurs and extracardial murmurs;
- mechanism of pericardial RUB and the contrast of pleural friction rub;
- instrumental and functional methods of research in diseases of the cardiovascular system in children.

The student should be able to:

- make inquiries, identify complaints of a sick child or parent with diseases of the cardiovascular system;

- examine the patient: position in bed, skin color and visible mucous membranes, cyanosis, swelling, pulsation and swelling of the large vessels of the neck, the shape of the chest, a change in the heart, the presence of a heart hump, cardiac shock, deformation of the musculoskeletal system and other signs;
- palpate the heart and large vessels and assess the diagnostic value of the changes detected;
- measure blood pressure in children;
- conduct percussion of the heart in children;
- conduct auscultation of the heart in children;
- correctly evaluate the data obtained in auscultative heart sounds;
- decipher ECG study in children;
- interpret laboratory analyses;
- issue a report on the lesson and report the results of the study.

4. Main questions of the topic:

1. Predisposing factors and causes leading to the development of heart failure syndrome in children of different age groups.
2. Clinical manifestations of heart failure syndrome
3. Predisposing factors and causes leading to the development of vascular insufficiency syndrome in children. Clinic.
4. Congenital heart disease in children. Clinic. Classification.
5. Valvular heart disease syndrome-definition.
6. The main clinical manifestations of rheumatism.
7. Mitral heart disease-definition, variety, causes.
8. Mitral valve insufficiency.
9. The concept of organic and functional mitral valve insufficiency, causes, features of hemodynamics. Clinical symptoms, their pathogenesis.
10. Stenosis of the left atrioventricular orifice. The concept of organic and functional stenosis.
11. Causes, features of hemodynamics, mechanisms of compensation and decompensation. Clinical symptoms, their pathogenesis.
12. The combination of mitral insufficiency and mitral stenosis, especially hemodynamics.
13. The value of additional diagnostic methods – laboratory, instrumental (ECG, PCG, Echocardiography, radiological).

5. The main forms/methods/technologies of training to achieve the final result of the discipline: discussion of the lesson topic, PBL

6. Types of control to assess the level of achievement of the final result of the discipline: Evaluation of the oral survey; Testing.

7. Literature:

Basic:

1. Mazurin, A. V. Propaedeutics of childhood diseases. 1 volume [: textbook / - Almaty: "Evero", 2017. - 144 p
2. Mazurin, A. V. Propaedeutics of childhood diseases. 2 volume]: textbook / - Almaty: "Evero", 2017. - 172 p.
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8. Issayeva, L. A. Childhood diseases. IV part [: textbook / - Almaty: "Evero", 2017. - 185 p.

Additional:

1.Karen J. marcdante. Robert M. Kligeman. Nelson “Essential of Pediatrics” 7th edition 2015.
2.Joseph J.Zorc Schwartz`s “ Clinical Handbook of Pediatrics” fifth edition 2013.

Electronic resources:

1. Karen J. marcdante. Robert M. Kligeman. Nelson “Essential of Pediatrics” 7th edition 2015. el disc (CD-ROM).

8. Control:

a) questions:

1. The most common congenital heart and vascular diseases, the connection with embryogenesis. The main symptoms and syndromes that manifest congenital heart disease and blood vessels.
2.Syndrome of arterio-venous discharge of blood and pulmonary hypertension in CHD. The most common CHD in this group, their brief description (ventricular septal Defect, atrial septal defect, PDA). Criteria for assessing the severity of the condition in the pathology of the cardiovascular system in children.
3.Syndrome of venous-arterial discharge in CHD. Brief description of CHD in this group (tetrad of Fallot, transposition of great vessels, hypoplasia of the left ventricle of the heart).
4. Syndrome gateway with CHD and blood vessels. The most common defects in this group, their brief description (coarctation of the aorta, aortic stenosis, pulmonary artery stenosis).
5.Diagnostic capabilities of instrumental and functional methods of investigation of the cardiovascular system in children.
6.Functional tests of the cardiovascular system in children, their assessment, normative characteristics of indicators. Age-related features of functional indicators of the cardiovascular system in children and adolescents: heart rate, pulse rate, blood pressure, shock and minute volumes, blood flow rate, circulating blood volume, etc., normative indicators.

b) tests:

1. “Heart hump” is a deformity (protrusion) of the chest in:
a) left hypochondrium
b) left axillary region
c) the area of the projection of the heart on the chest
2. The amplification of the apical impulse is associated with:
a) dilation of the left ventricle
b) dilatation of the right ventricle
c) left ventricular hypertrophy
d) right ventricular hypertrophy
3. Congenital heart defects with the syndrome of increased blood flow through the lungs include:
a) aortic stenosis
b) Fallot's tetrad
c) open arterial duct (OAD)
4. Congenital heart defects with impoverishment of the pulmonary circulation include:
a) Fallot's tetrad
b) aortic stenosis
c) ventricular septal defect
5. To congenital heart disease with gateway syndrome include:
a) ventricular septal defect
b) open arterial duct

c) coarctation of the aorta
e) atrial defect
6. In case of circulatory failure, the degree of symptoms appear:
a) after exercise
b) alone
c) mostly at night
7. Specify the leading clinical symptom in left ventricular heart failure in a young child:
A) chest pain
B) liver enlargement
C) rapid breathing
D) peripheral edema
E) headache
8. Choose a non-characteristic clinical sign of respiratory failure in children with chronic heart failure:
A) movement of the nostrils
B) intercostal spacing
C) groan
D) liver enlargement
E) pulmonary rales
9. Early clinical sign in heart failure in infants:
A) tachypnea
B) meningeal symptoms
C) oliguria
D) cyanosis
E) pallor
10. What examination is considered necessary in the diagnosis of heart failure in children:
A) Echocardiography
B) ECG
C) chest radiography
D) ECG Holter Monitoring
E) magnetic resonance

Answer standard:
1-B, 2-B, 3-B, 4-A, 5-B, 6-A, 7-C, 8-D, 9-A, 10-A.

№7
1. Theme: Clinical syndromes of the digestive system in children of different age groups. Features of dyspeptic syndrome in COVID-19.
2. Purpose: to teach etiology, pathogenesis, clinical manifestations of dysphagia syndrome, dyspepsia and malabsorption, digestive disorders in children, laboratory and instrumental diagnosis of these syndromes. Consolidate knowledge and skills in the diagnosis of these syndromes (questioning, physical examination data, palpation, percussion, auscultation; data paraclinic study).
3. Learning objectives:
The student should know:

- method of questioning a patient with diseases of the digestive system: the main, minor complaints, their pathogenesis;
- features of disease and life history: the role of predisposing factors in the development of diseases of the digestive system;
- methods of examination of patients with pathology of the digestive system;
- methods of superficial palpation of the abdomen in children of different age groups;
- methods of deep palpation of the abdomen in children of different age groups;
- methodology to identify the symptoms: Murphy, Ortner, Kera, Frenikus-symptom (symptom of Mussi), Boas;
- methodology to determine the pain points and zones on the anterior abdominal wall: Shoffar zone, Desjardins points, Mayo-Robson point, Mendel, the presence of free fluid in the abdominal cavity;
- endoscopic examination of the digestive system in children;
- x-ray examination of the digestive system in children: examination of the esophagus, stomach, small and large intestine;
- methods of functional and biochemical studies of the liver and biliary tract in children: fractional duodenal probing; significance of bilirubin determination, studies of carbohydrate, protein-synthetic excretory, fatty, detoxification liver function;
- coprology test.

The student should be able to:

- methods of clinical examination of a patient with pathology of the digestive system:

a) to question a sick child or parent with digestive diseases;

b) features of the examination: position in bed, examination of the oral cavity, skin color, examination of the abdomen, areas of the anus, bowel movements;

- identify complaints of patients with diseases of the digestive system: abdominal pain, vomiting, appetite disorders, etc.;
- perform superficial palpation of the abdomen;
- perform deep palpation of the abdomen;
- identify the symptoms: Murphy, of Ortner, Kera, Frenikus-symptom (symptom of Mussi), Boas;
- identify pain points and zones on the anterior abdominal wall: Shoffar zone, Desjardins points, Mayo-Robson point, Mendel, the presence of free fluid in the abdominal cavity;
- evaluate the results of fractional duodenal sensing;
- evaluate the results of the coprological study;
- evaluate the results of biochemical blood analysis (total protein and protein fractions, bilirubin, AST, ALT, LDH, alkaline phosphatase, cholesterol, glucose, total lipids, urea);
- evaluate radiographs of children of different ages with gastrointestinal lesions.

4. Main questions of the topic:

1. Predisposing factors and causes leading to the development of digestive disorders in children of different age groups.
2. Clinical manifestations of disorders of secretory function of the digestive system.
3. Predisposing factors and causes leading to the development of dysphagia, dyspepsia in children of different age groups.
4. The main clinical and endoscopic and morphological signs of dysphagia, dyspepsia.
5. Predisposing factors and causes leading to the development of malabsorption syndrome in children of different age groups.
6. The main clinical and endoscopic and morphological signs of malabsorption

7. Pancreatic exocrine insufficiency syndrome, causes, symptoms, diagnosis in children of different age groups.

5. The main forms/methods/technologies of training to achieve the final result of the discipline: discussion of the lesson topic, mastering practical skills

6. Types of control to assess the level of achievement of the final result of the discipline: Evaluation of the oral survey; Testing.

7. Literature:

Basic:

1. Mazurin, A. V. Propaedeutics of childhood diseases. 1 volume [: textbook / - Almaty : "Evero" , 2017. - 144 p
2. Mazurin, A. V. Propaedeutics of childhood diseases. 2 volume] : textbook / - Almaty : "Evero" , 2017. - 172 p.
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Additional:

1.Karen J. marcdante. Robert M. Kligeman. Nelson “Essential of Pediatrics” 7th edition 2015.
2.Joseph J.Zorc Schwartz`s “ Clinical Handbook of Pediatrics” fifth edition 2013.

Electronic resources:

1. Karen J. marcdante. Robert M. Kligeman. Nelson “Essential of Pediatrics” 7th edition 2015. el disc (CD-ROM).

8.Control:

a)tests:

1. In typical cases, pain in the Shoffar zone indicates:
A) damage to the body of the stomach
B) the defeat of the pyloric stomach
C) lesion of the duodenum 12
D) lesion of the duodenum and / or pyloric stomach
E) lesion of the pyloric stomach, duodenum and / or pancreas head.
2. Amyloria, creatorea, and steatorrhea are characteristic of:
A) gastritis
B) cholecystitis
C) pancreatitis
D) gastric ulcer
E) stomach cancer
3. Aching pain in the epigastric region, arising through 1.5-2 hours after eating (late pains), fasting (hungry) and night pains indicate:
A) gastritis
B) gastric cancer
C) duodenal ulcer
D) Pancreatitis
E) colitis

4. The secretory function of the stomach can be determined:
A) probe method
B) gastrography
C) duodenal sounding
D) according to the general blood test
E) coprological research
5. Gastric secretion is determined by:
A) histamine
B) magnesia sulphate
C) barium sulfate
D) nitroglycerin
E) digoxin
6. Radiological symptom "Niche" in the study of the stomach indicates:
A) gastric cancer
B) gastritis
C) gastric ulcer
D) portal hypertension syndrome
E) the opening of the port-caval anastomoses
7. “Defect of filling” during fluoroscopy of the stomach occurs when:
A) gastric cancer
B) gastritis
C) peptic ulcer disease
D) portal hypertension syndrome
E) the opening of the port-caval anastomoses
8. Increased basal secretion is more often with:
A) gastric cancer
B) peptic ulcer disease
C) gastritis
D) liver cirrhosis
E) cholecystitis
9. The positive symptoms of Ortner, Frenicus, pain in the choledochus-pancreatic zone indicate:
A) cholecystitis
B) liver cirrhosis
C) peptic ulcer disease
D) Pancreatitis
E) gastritis
10. Paroxysmal pain in the epigastric region, bearing shingles, accompanied by repeated vomiting are characteristic of:
A) cholecystitis
B) peptic ulcer disease
C) gastric cancer
D) Pancreatitis
E) cirrhosis

Standards of answers.
1-E, 2-C, 3- C, 4- A, 5-A, 6-C, 7-A, 8-B, 9-A, 10-D

б)situation tasks:

Task 1

Patient A., 16 years old, complains of a feeling of bursting in the epigastrium after taking a small amount of food, burping air with rotten eggs, nausea after eating, sometimes vomiting eaten the day before.

From the anamnesis: he considers himself ill for 5 years, when the "hungry" pains in the epigastrium, decreasing after eating or artificially induced vomiting and aggravating at night, began to bother. He was treated mainly on an outpatient basis with antacid preparations. Exacerbations almost every year (mostly in spring). In the period of remission, no complaints. The last year, the nature of the disease has changed: there were gradually increasing feelings of heaviness and overflow in the epigastric after eating and belching "rotten egg". The patient began to lose weight.

On examination: the patient is pale. Subcutaneous fat layer is developed poorly. The tongue is overlaid with thick white bloom. Traube space is not defined. Palpation in the epigastrium shows a slight pain, Vasilenko's symptom (late splashing noise to the right of the median line) is positive.

Questions:

1. What syndromes can be distinguished from a patient based on available data?
2. What disease and which complication is most likely in this patient?

Task 2

Patient B., 15 years old, was admitted to the clinic with complaints of constant dull, aching pain in the epigastric region, aggravated after eating, especially profuse. Pains are relieved by vomiting food; a feeling of rapid satiety, a feeling of heaviness and overflow in the epigastrium; nausea, lack of appetite, aversion to meat food; general weakness, decreased performance, loss of interest in the environment.

From the anamnesis: for 5 years, suffers from chronic anacid gastritis. The complaints described above appeared last 2-3 months. The patient lost 6 kg during this time.

Admission: satisfactory condition. Body weight is reduced. Pale skin with a sallow shade. Skin turgor reduced. On the left, in the supraclavicular region, a dense, painless lymph node (Virchow) is palpated. On examination of the abdomen, a slight bulging in the epigastric region is revealed, more left. On palpation of the abdomen there is a diffuse moderate pain and local muscle protection in the epigastrium. The liver and spleen is not palpable.

When X-ray of the stomach: filling defect with uneven contours along the lesser curvature, rigidity of the stomach wall along the lesser curvature with a transition to greater curvature.

Questions:

What syndromes can be distinguished from this patient?

What disease can be thought of, given the combination of these syndromes?

What additional studies are needed to clarify the diagnosis?

Task 3

Patient B., 17 years old, was admitted to the ward with complaints of an unformed abundant stool with the remnants of undigested food and drops of fat 3-4 times a day, bloating.

On examination: low power. The skin is dry, reduced turgor.

Coprological study: fecal masses of grayish-yellow color, unformed, soft heterogeneous consistency, response to stercobilin - positive, muscle fibers that have remained striated - ++, lost striation - +++, neutral fat - +++, fatty acids - +, Soap - +, extracellular starch - +++.

Questions:

1. Highlight the leading clinical laboratory syndrome in the patient
2. What disease development can be assumed in a patient?

3. Specify the main research methods that are needed to confirm the diagnosis.

Answers to tasks

Task 1

1. Syndrome of gastric dyspepsia, Syndrome violation of the evacuation function of the stomach.
2. Duodenal ulcer complicated by pyloric stenosis.

Task 2

1. Syndrome of gastric dyspepsia, Syndrome violation of the evacuation function of the stomach, intoxication syndrome
2.It should think about a malignant tumor of the body of the stomach
3. It is necessary to carry out an esophagogastroduodenoscopy with biopsy taking.

Task 3

1. Syndrome of exocrine pancreatic insufficiency, Pain syndrome, Intestinal dyspepsia syndrome
2. Probably in a patient with chronic pancreatitis
3. Ultrasound studies, computed tomography, the study of enzymes in serum and urine.

№8

1. Theme: Clinical syndromes of the hepatobiliary system in children of different age groups.

2.Purpose: to teach etiology, pathogenesis, clinical manifestations of syndromes in diseases of the hepatobiliary system in children of different age groups, laboratory and instrumental diagnosis of these syndromes. Consolidate knowledge and skills in the diagnosis of these syndromes (questioning, physical examination data, palpation, percussion, auscultation; data paraclinic study)

3. Learning objectives:

The student should know:

- method of questioning a patient with diseases of the digestive system: the main, minor complaints, pathogenesis;
- features of disease and life history: the role of predisposing factors in the development of diseases of the digestive system;
- methods of examination of patients with pathology of the digestive system;
- methods of superficial palpation of the abdomen in children of different age groups;
- method of determining symptoms: Murphy, Ortner, Kera, Frenikus-symptom (symptom of Mussi), Boas;
- methods of percussion of the liver, spleen boundaries;
- methodology for determining the size of the liver by Kurlov;
- technique of auscultation of the abdomen;
- endoscopic examination of the digestive system in children;
- x-ray examination of the digestive system in children: examination of the esophagus, stomach, small and large intestine;
- methods of functional and biochemical studies of the liver and biliary tract in children: fractional duodenal probing; significance of bilirubin determination, studies of carbohydrate, protein-synthetic excretory, fatty, detoxification liver function;
- coprological research.

The student should be able to:

- methods of clinical examination of a patient with pathology of the digestive system:

a) to question a sick child or parent with digestive diseases;
b) features of the examination: position in bed, examination of the oral cavity, skin color, examination of the abdomen, areas of the anus, bowel movements;

- identify complaints of patients with diseases of the digestive system: abdominal pain, vomiting, appetite disorders, etc.;
- perform superficial palpation of the abdomen;
- identify the symptoms: Murphy, Ortner, Kera, Frenikus-symptom (symptom of Mussi), Boas;
- perform percussion of the boundaries of the liver, spleen;
- determine the size of the liver by Kurlov;
- perform auscultation of the abdomen and determine the free fluid in the abdomen;
- evaluate the results of fractional duodenal sensing;
- evaluate the results of the coprological study;
- evaluate the results of biochemical blood analysis (total protein and protein fractions, bilirubin, AST, ALT, LDH, alkaline phosphatase, cholesterol, glucose, total lipids, urea);
- evaluate radiographs of children of different ages with gastrointestinal lesions.

4. Main questions of the topic:

1. Predisposing factors and causes leading to the development of hepatosplenomegaly syndromes in children of different age groups.
2. Clinical manifestations of hepatosplenomegaly in children of different age groups.
3. Causes leading to the development of chronic hepatitis and cirrhosis of the liver.
4. Pathogenesis and classification of chronic hepatitis and cirrhosis.
5. Pathological changes in chronic hepatitis and cirrhosis of the liver.
6. The main symptoms and syndromes in liver diseases.
7. Laboratory and instrumental methods of liver examination.

5. The main forms/methods/technologies of training to achieve the final result of the discipline: discussion of the lesson topic, TBL

6. Types of control to assess the level of achievement of the final result of the discipline: Evaluation of the oral survey; Testing.

7. Literature:

Basic:

1. Mazurin, A. V. Propaedeutics of childhood diseases. 1 volume [: textbook / - Almaty : "Evero" , 2017. - 144 p
2. Mazurin, A. V. Propaedeutics of childhood diseases. 2 volume] : textbook / - Almaty : "Evero" , 2017. - 172 p.
3. Mazurin, A. V. Propaedeuutics of childhood diseases. 3 volume [: textbook / - Almaty : "Evero" , 2017. - 140 p.
4. Mazurin, A. V. Propaedeutics of childhood diseases. 4 volume: textbook / - Almaty : "Evero" , 2017. - 120 p.
5. Issayeva, L. A. Childhood diseases. I part [: textbook / - Almaty: "Evero" , 2017. - 144 p
6. Issayeva, L. A. Childhood diseases. II part] : textbook / - Almaty : "Evero" , 2017. - 170 p.
7. Issayeva, L. A. Childhood diseases. III part [: textbook / - Almaty: "Evero" , 2017. - 140 p.
8. Issayeva, L. A. Childhood diseases. IV part [: textbook / - Almaty: "Evero", 2017. - 185 p.

Additional:

1.Karen J. marcdante. Robert M. Kligeman. Nelson “Essential of Pediatrics” 7th edition 2015.
2.Joseph J.Zorc Schwartz`s “ Clinical Handbook of Pediatrics” fifth edition 2013.

Electronic resources:

1. Karen J. marcdante. Robert M. Kligeman. Nelson “Essential of Pediatrics” 7th edition 2015. el disc (CD-ROM).

8. Control:

1. Signs of portal hypertension occur when:
A) peptic ulcer disease
B) cholecystitis
C) pancreatitis
D) liver cirrhosis
E) gastritis
2. Bleeding from esophageal varicose veins, hemorrhoidal veins is possible with:
A) cirrhosis of the liver
B) hepatitis
C) cholecystitis
D) peptic ulcer
E) gastritis
3. With ascites navel:
A) retracted
B) not changed
C) protrudes above the surface of the abdomen
D) suppurate
E) becomes painful
4. The peritoneal friction noise is heard when:
A) peptic ulcer disease
B) gastritis
C) inflammation of the serous cover of the liver and spleen
D) cholecystitis
E) biliary dyskinesia
5. A complication of portal hypertension syndrome is:
A) hepatic colic
B) liver cancer
C) bleeding from the veins of the esophagus
D) gastric ulcer
E) cholecystitis
6. The soft edge of the liver during its palpation is characteristic of:
A) cirrhosis
B) Hepatitis
C) liver cancer
D) amyloidosis
E) multiple cancer metastases
7. A painful margin of the liver is characteristic of:
A) cirrhosis
B) Hepatitis
C) liver cancer
D) biliary dyskinesia
E) cholecystitis
8. For suprahepatic (hemolytic) jaundice, the characteristic coloring of the skin:

A) orange-yellow
B) green and yellow
C) lemon yellow
D) bronze
E) cyanotic
9. "Vascular stars" are characteristic of:
A) cirrhosis
B) cholecystitis
C) pancreatitis
D) gastritis
E) gastric ulcer
10. Splenomegaly in liver diseases is a manifestation of:
A) hepatocellular failure
B) portal hypertension
C) biliary dyskinesia
D) cholangitis
E) gastritis

Answer tests:

1-Д, 2-А, 3- С, 4-С, 5-С, 6-В, 7- В, 8- С, 9-А, 10-В.

№9

1. Theme: Clinical and laboratory characteristics of urinary, dysuric, nephritic and nephrotic syndromes in children of different age groups.

2. Purpose: to teach etiology, pathogenesis, clinical manifestations in nephritic and nephrotic syndromes in children, laboratory and instrumental diagnosis of these syndromes. Consolidate knowledge and skills in the diagnosis of these syndromes (questioning, physical examination data, palpation, percussion, auscultation; data paraclinic study).

3. Learning objectives:

The student should know:

- method of questioning a patient with diseases of the urinary system: the main, minor complaints, their pathogenesis;
- features of disease and life history: the role of predisposing factors in the development of diseases of the urinary system;
- methods of examination of patients with pathology of the urinary system;
- methods of palpation: determination of fluid in the abdominal cavity, hypersensitivity and tenderness of the projection of the kidneys; palpation of the shins, lumbar region, lower abdomen with the definition of edema; bladder; upper and middle points of pain of the ureters;
- percussion technique: determination of free fluid in the abdominal cavity, the state of bladder filling, Pasternatsky symptom;
- methods of investigation of the functional state of the kidneys in children;
- instrumental methods of research in diseases of the urinary system in children;
- laboratory studies in diseases of the urinary system in children.

The student should be able to:

- conduct questioning, identify complaints of patients with diseases of the urinary system: pain in the lumbar region, dysuric phenomena, swelling, etc.;

- conduct a clinical examination of the child's urinary system;
- perform palpation: determination of fluid in the abdominal cavity, hypersensitivity and pain projection of the kidneys; palpation of the legs, lumbar region, lower abdomen with the definition of edema; bladder; upper and middle points of pain of the ureters;
- perform percussion: determination of free fluid in the abdominal cavity, the state of filling of the bladder, the symptom of Pasternatsky;
- evaluate the results of the examination of urine: general urine analysis, urine analysis according to the method Nechiporenko urine analysis by the method of General analysis of urine according to the method Kakhovskogo-Addisa, urine analysis according to the method of Hamburge, bacterial seeding urine to determine the sensitivity of microorganisms to antibiotics;
- evaluate the results of biochemical blood analysis (total protein and protein fractions, potassium, calcium, sodium, chlorine, creatinine, cholesterol, glucose, total lipids, urea);
- evaluate radiographs of children of different ages with lesions of the urinary system;
- issue a report on the lesson and report the results of the study.

4. Main questions of the topic:

1. Predisposing factors and causes leading to the development of nephritic and nephrotic syndromes in children of different age groups.
2. Clinical manifestations of nephritic and nephrotic syndromes in children of different age groups.
3.Methods of general examination of patients with urinary syndrome.
4.Methods of general examination of patients with nephrotic syndrome.
5.The main symptoms of urinary syndrome. The main symptoms of nephrotic syndrome.
6.Types of hematuria, diagnostic value.
7. Instrumental methods of research in neurotic and neurotic syndromes in children.
8. Laboratory studies in nephritic and nephrotic syndromes in children.

5. The main forms/methods/technologies of training to achieve the final result of the discipline: discussion of the lesson topic, PBL

6. Types of control to assess the level of achievement of the final result of the discipline: Evaluation of the oral survey; Testing.

7. Literature:

Basic:

1. Mazurin, A. V. Propaedeutics of childhood diseases. 1 volume [: textbook / - Almaty : "Evero" , 2017. - 144 p
2. Mazurin, A. V. Propaedeutics of childhood diseases. 2 volume] : textbook / - Almaty : "Evero" , 2017. - 172 p.
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4. Mazurin, A. V. Propaedeutics of childhood diseases. 4 volume: textbook / - Almaty : "Evero" , 2017. - 120 p.
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7. Issayeva, L. A. Childhood diseases. III part [: textbook / - Almaty: "Evero", 2017. - 140 p.
8. Issayeva, L. A. Childhood diseases. IV part [: textbook / - Almaty: "Evero", 2017. - 185 p.

Additional:

1.Karen J. marcdante. Robert M. Kligeman. Nelson “Essential of Pediatrics” 7th edition 2015.
2.Joseph J.Zorc Schwartz`s “ Clinical Handbook of Pediatrics” fifth edition 2013.

Electronic resources:

1. Karen J. marcdante. Robert M. Kligeman. Nelson “Essential of Pediatrics” 7th edition 2015. el disc (CD-ROM).

8.Control:

a)tests:

1. The nephrotic syndrome is characterized by: 1) massive edema (anasarca); 2) arterial hypertension; 3) proteinuria more than 2 g / day; 4) proteinuria less than 2 g / day; 5) hypophosphatemia; 6) hypercholesterolemia; 7) hypoproteinemia; 8) hypocalcemia

A. 2,4,8
B.1,2,5,7
C. 4,5,6,7,8
D. 1,3,6,7
E.3,4,6,8

2. For nephrotic syndrome is not typical:
A) anemia
B) significant proteinuria
C) hypercholesterolemia
D) hypoproteinemia
E) swelling

3. The positive symptom of Pasternack happens when:
A) glomerulonephritis
B) pyelonephritis
C) cystitis
D) hypertension
E) urethritis

4. The concentration function of the kidneys can be determined by:
A) urine analysis according to Nechyporenko
B) urinalysis
C) urine analysis in Zimnitsky
D) Thompson test
E) bacterial seeding

5. Concentration function of the kidneys assessed by:
A) Thompson's three-test sample
B) analysis according to Nechiporenko
C) Zimnitsky test
D) total urine analysis
E) sugar analysis

6. For nephrotic syndrome is not typical:
A) swelling
B) massive proteinuria
C) hypoproteinemia
D) hyperkalemia
E) hypercholesterolemia

7. The clinical manifestations of FACIES NEFRITICA are:
A) swelling of the face, pale skin
B) swelling of the face, acrocyanosis
C) swelling of the face, hemorrhagic rash on the face
D) swelling of the face, skin flushing

E) swelling of the face, bronze color of the skin
8. The diagnostic criteria for Nephrotic Syndrome DO NOT include:
A) proteinuria more than 3.5 g / l
B) hypoalbuminemia
C) hypergammaglobulinemia
D) hypercholesterolemia
E) swelling
9. Nephrotic syndrome may occur when:
A) diabetes
B) myeloma
C) amyloidosis
D) extrapulmonary tumor
E) for all listed diseases
10. The main symptom of nephrotic syndrome is:
A) leukocyturia
B) proteinuria
C) hematuria
D) cylindruria
E) bacteriuria
11. The cause of hypoproteinemia in nephrotic syndrome is not:
A) loss of protein in the urine
B) enhanced synthesis of ß-globulins
C) the transfer of proteins from plasma into extracellular fluid
D) loss of protein through the swollen intestinal mucosa
E) increased permeability of the glomerular basement membrane
Answers:
1-D, 2-A, 3-B, 4-C, 5-C, 6-D, 7-A, 8-C, 9-E, 10-B, 11-B.

b) Situational tasks:
Task 1
A girl of 4 years old was admitted to the ward with complaints of edema.
Anamnesis data: the child is from I normal pregnancy, delivery in time. Weight at birth 3200 gr., Length 50cm. Physical psychomotor development without features. Postponed diseases: wind. smallpox, often sick ARVI. Allergic history: atopic dermatitis up to 3 years.
After suffering ARVI, the girl had swelling on her face, rare urination. The local doctor was diagnosed with angioedema, suprastin was prescribed. Despite ongoing therapy, the swelling increased, and the girl was hospitalized.
Objective examination data: when admitted to hospital, the condition is severe. Pale skin. Severe swelling of the face, legs, feet, anterior abdominal wall, ascites. In the lungs vesicular breathing, no wheezing. The number of breaths is 34 per minute. Muffled heart sounds. Pulse 110 beats per minute, BP - 90/60 mm. Hg Art. The abdomen is soft, painless. Liver +2.0 cm from the edge of the costal arch. Pees rarely. Has allocated for day 180 ml of urine.
The data of the survey:
In the analysis of urine protein 8.0 0/00, 2-3 leukocytes in the field of view, red blood cells are missing.
Complete blood count: Hb - 127 g / l, er - 3.8 x1012 / l, leuke - 10.2x109 / l, p / i - 1%, s - 36%, l - 54%, e - 2%, m - 8%, ESR - 50 mm / hour.

Questions:
1. What disease can I think about?
2. What biochemical blood parameters are needed to clarify the diagnosis?

Answers
Task 1.
1. Acute glomerulonephritis with nephrotic syndrome (idiopathic nephrotic syndrome).
2. Proteinogram (expect severe hypoproteinemia in combination with hypoalbuminemia), lipidogram (compensatory increase in cholesterol and triglycerides).
3. Elevated urea, creatinine, blood electrolytes (possible hyperkalemia) may indicate the development of acute renal failure.
4. Coagulogram (tendency to hypercoagulation)

№10

1. Theme: Diagnosis of hypo - hyperthyroidism syndrome in children of different age groups.
2.Purpose: to teach etiology, pathogenesis, clinical manifestations of Hypo-hyperthyroidism syndrome in children of different age groups. To consolidate knowledge and skills in the diagnosis of the endocrine system (questioning, physical examination data, palpation, percussion, auscultation, paraclinical study data).
3. Learning objectives:
The student should know:
- methods of questioning patients with diseases of the endocrine system and metabolism: the main, minor complaints, their pathogenesis;
- features of disease and life history: the role of predisposing factors in the development of diseases of the endocrine system
- methods of examination of patients with diseases of the endocrine system and metabolism: pathogenesis and diagnostic significance of the detected changes;
- technique of palpation of thyroid gland;
- palpation pulse technique and its characteristics;
- methodology for measurement of arterial pressure, age norms;
- methodology to assess sexual development in children;
- instrumental and functional methods of endocrine system research;
- laboratory methods of research of endocrine system.

The student should be able to:
- make inquiries, identify complaints of patients with diseases of the endocrine system: obesity, growth disorders, etc.;
- carry out examination of the patient, General examination with assessment of physical development, proportionality of a Constitution and other signs;
- palpate the thyroid gland;
- palpate the pulse and its characteristics;
- measure blood pressure, age standards;

- assessment of sexual development: girls - hair of the axillary fossa, pubis, development of mammary glands, the nature of menstrual function; boys-facial hair, axillary fossa, pubis; Adam's Apple formation, age-related voice changes, penis size, testicular size;
- interpret laboratory analyses;
- issue a report on the lesson and report the results of the study.

4. Main questions of the topic:

1. Predisposing factors and causes leading to the development of endocrine disorders in children of different age groups.
2. Clinical manifestations of hypo - hyperthyroidism in children.
3. Predisposing factors and causes leading to the development of hypo - hyperthyroidism in children of different age groups.
4. Clinical manifestations of hypo - hyperthyroidism in children.
5. The main and additional complaints with diseases of the endocrine system.
6. Methods of examination of sick children with diseases of the endocrine system. Palpation of the thyroid gland in children of different age groups.
7. Laboratory and instrumental diagnostics of endocrine system in children of different age groups.

5. The main forms/methods/technologies of training to achieve the final result of the discipline: discussion of the lesson topic, mastering practical skills

6. Types of control to assess the level of achievement of the final result of the discipline: Evaluation of the oral survey; Testing.

7. Literature:

Basic:

1. Mazurin, A. V. Propaedeutics of childhood diseases. 1 volume [: textbook / - Almaty : "Evero" , 2017. - 144 p
2. Mazurin, A. V. Propaedeutics of childhood diseases. 2 volume] : textbook / - Almaty : "Evero" , 2017. - 172 p.
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4. Mazurin, A. V. Propaedeutics of childhood diseases. 4 volume: textbook / - Almaty : "Evero" , 2017. - 120 p.
5. Issayeva, L. A. Childhood diseases. I part [: textbook / - Almaty: "Evero" , 2017. - 144 p
6. Issayeva, L. A. Childhood diseases. II part] : textbook / - Almaty: "Evero" , 2017. - 170 p.
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8. Issayeva, L. A. Childhood diseases. IV part [: textbook / - Almaty: "Evero", 2017. - 185 p.

Additional:

1.Karen J. marcdante. Robert M. Kligeman. Nelson “Essential of Pediatrics” 7th edition 2015.
2.Joseph J.Zorc Schwartz`s “ Clinical Handbook of Pediatrics” fifth edition 2013.

Electronic resources:

1. Karen J. marcdante. Robert M. Kligeman. Nelson “Essential of Pediatrics” 7th edition 2015. el disc (CD-ROM).

8.Control:

a)tests:

1. The signs of congenital hypothyroidism do not include:
A) prolonged jaundice of the newborn
B) a large mass at birth
C) macroglossia
D) tachycardia, hyperthermia

E) decrease in T4 and increase in TTG
2. Tall children are diagnosed when exceeding the body length by:
A) 1 SD standard deviation
B) 2 or more SD standard deviations
C) up to 2 standard deviations of SD
D) from 1 to 2 standard deviations of SD
E) from 3 standard deviations of SD
3. What research is necessary to conduct to exclude or confirm chromosomal disease in children:
A) clinical blood test
B) determination of alkaline phosphatase in the blood
C) karyotyping
D) determination of the level of thyroid-stimulating hormones in the blood
E) determination of the level of somatotropic hormone in the blood
4. A clinical examination of a child is indicated if the indicators of body length are:
A) from 10 to 25 centile
C) from 75 to 90 centile
C) below 3 centiles or above 97 centiles
D) from 3 to 10 centile
E) from 25 to 75 centile
5. For differential diagnosis of forms of growth in children, it is necessary to consider:
A) parental growth
B) body proportions
C) bone age
D) growth rate
E) all of the above
6. In case of congenital hypothyroidism, the functions are violated first of all:
A) cardiovascular system
B) the central nervous system
C) pulmonary system
D) the immune system
E) urinary system
7. The diagnosis of congenital hypothyroidism is confirmed:
A) a decrease in the level of T4
C) a decrease in the level of TSH
C) increased levels of T4 and TSH
D) a decrease in the level of T4 and an increase in TSH
E) an increase in the level of T4 and a decrease in TSH
8. The diagnosis of obesity is established if the excess body weight from the proper length of the body is more than:
A) 30 percent
B) 20 percent
C) 25 percent
D) 15 percent
E) 10 percent
9. The most common form of obesity in children:
A) in pubertal hypothalamic syndrome
B) in the syndrome Itsenko - Cushing

C) constitutional exogenous
D) for tumors of the NPD
E) with genetic syndromes
10. Pituitary Nanism (hypopituitarism) is a disease associated with:
A) lack of growth hormone
B) lack of thyroid stimulating hormone
C) lack of somatotropic hormone or its tissue mediators - somatomedins
D) lack of gonadotropic hormones
E) lack of adrenocorticotropic hormone
11. Methods of examination of patients with impaired growth of children include:
A) assessment of growth and growth rate, body proportions
C) the definition of biological ("bone") age
C) a detailed history, including family
D) carrying out functional tests
E) all the above surveys
12. In the first degree of obesity, the excess body weight is:
A) 15-24%
B) 25-49 percent
C) 50-99%
D) more than 100 percent
E) up to 15 percent

answers:

1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
D	B	C	C	E	B	D	D	C	C	E	A

b) situational tasks:

Task 1

When examining a boy of 15 years, there is a lack of secondary sexual characteristics, eunuchoid body type. The level of gonadotropic hormones in the blood is increased, testosterone is reduced.

Question:

What kind of clinical syndrome do the presented data show?

Task 2

A 13-year-old girl is worried about heartbeat, feeling of heat, weakness I lost 2 months in 5 kg. Crying, irritable. Skin moisture, fine tremor of the fingers. Thyroid gland Art., Diffuse, elastic, painless, mobile.

Questions:

1. Which endocrine gland function is impaired?
2. What is the possible clinical syndrome?
3. What laboratory tests should be prescribed?

Task 3

When examining a child, the blood glucose level is 17 mmol / l, in the urine - 5%, acetone - (+++).

Question:

How to evaluate the presented laboratory indicators?

Task 4

A 10-year-old child complains of a feeling of "numbness", crawling of "goosebumps" in the hands, irritability, and occasional cramps of the fingers in the form of an "obstetrician's hand". Two weeks ago, he suffered a subtotal strumectomy for diffuse toxic goiter. Symptoms gradually increased. Sharply positive symptoms of Tailstock Trusso. The level of calcium in the blood is reduced.

Questions:

1. On the damage of which endocrine glands may indicate
presented symptoms?
2. Causes of this condition?
3. What disease corresponds to such a clinical picture?

Task 5

A 12-year-old girl is worried about increased appetite and overweight, which have been observed since early childhood. Overweight is noted in mother, father, grandmother. Height - 156 cm, M - 66 kg. The distribution of subcutaneous fat is even. The skin is clean, moderately moist. Blood pressure is normal. From the internal organs of the pathology was not detected.

Question:

What clinical syndrome do these symptoms correspond to?

Task 6

A 13-year-old boy is stunted by 4.0 sigma. Disturb weakness, lethargy. The constitution is proportional. The skin is dry, pale with an icy shade. Intellect is not broken. From the internal organs of the pathology was not detected. Blood pressure is 80/50 mmHg. Outer genital organs are underdeveloped. Secondary sexual characteristics are absent. In the family of short stature is not observed.

Questions:

2. What disease most reliably corresponds to
symptoms?
3. What function of the endocrine gland is impaired in this pathology?
4. What hormone levels must be determined to clarify the diagnosis?

Standards of answers:

Task 1

Primary hypogonadism.

Task 2

1. Disrupted thyroid function.
2. The presented symptoms correspond to hyperthyroidism.
3. It is necessary to determine the levels of triiodothyronine (T3), thyroxin (T4),
thyrotropin (TSH) in the blood.

Task 3

Hyperglycemia, glycosuria, ketonuria.

Task 4

1. Parathyroid glands.
2. The occurrence of this condition is caused by damage to the parathyroid glands during the subtotal resection of the thyroid gland.
3. The clinical picture corresponds to the parathyroid function insufficiency syndrome - hypoparathyroidism.

Task 5
Obesity II stage., Exogenous constitutional genesis.
Task 6
1. Syndrome "nanizma".
2. Pituitary Nanism.
3. Impaired pituitary function.
4. It is necessary to determine the levels of tropic hormone pituitary before total, somatotropin.

№11
1. Theme: Diagnosis of hypo - hyperglycemia syndrome in children.
2.Purpose: to teach etiology, pathogenesis, clinical manifestations of Hypo – hyperglycemia syndrome in children of different age groups. To consolidate knowledge and skills in the diagnosis of the endocrine system (questioning, physical examination data, palpation, percussion, auscultation, paraclinical study data).
3. Learning objectives:
The student should know:
- methods of questioning patients with diseases of the endocrine system and metabolism: the main, minor complaints, their pathogenesis;
- features of disease and life history: the role of predisposing factors in the development of diseases of the endocrine system
- methods of examination of patients with diseases of the endocrine system and metabolism: pathogenesis and diagnostic significance of the detected changes;
- technique of palpation of thyroid gland;
- palpation pulse technique and its characteristics;
- methodology for measurement of arterial pressure, age norms;
- methodology to assess sexual development in children;
- instrumental and functional methods of endocrine system research;
- laboratory methods of research of endocrine system.

The student should be able to:
- make inquiries, identify complaints of patients with diseases of the endocrine system: obesity, growth disorders, etc.;
- carry out examination of the patient, General examination with assessment of physical development, proportionality of a Constitution and other signs;
- palpate the thyroid gland;
- palpate the pulse and its characteristics;
- measure blood pressure, age standards;
- assessment of sexual development: girls - hair of the axillary fossa, pubis, development of mammary glands, the nature of menstrual function; boys-facial hair, axillary fossa, pubis; Adam's Apple formation, age-related voice changes, penis size, testicular size;
- interpret laboratory analyses;
- issue a report on the lesson and report the results of the study.

4. Main questions of the topic:

1. Predisposing factors and causes leading to the development of diabetes in children of different age groups.
2. Clinical manifestations of hypo-hyperglycemia syndrome in children.
3. Predisposing factors and causes leading to the development of hypo – hyperglycemia syndrome in children of different age groups.
4. Clinical manifestations of hypo-hyperglycemia syndrome in children.
5. The main and additional complaints with diseases of the endocrine system.
6. Laboratory and instrumental diagnostics of endocrine system in children of different age groups.

5. The main forms/methods/technologies of training to achieve the final result of the discipline: discussion of the lesson topic, mastering practical skills

6. Types of control to assess the level of achievement of the final result of the discipline: Evaluation of the oral survey; Testing.

7. Literature:

Basic:

1. Mazurin, A. V. Propaedeutics of childhood diseases. 1 volume [: textbook / - Almaty : "Evero" , 2017. - 144 p
2. Mazurin, A. V. Propaedeutics of childhood diseases. 2 volume] : textbook / - Almaty : "Evero" , 2017. - 172 p.
3. Mazurin, A. V. Propaedeuutics of childhood diseases. 3 volume [: textbook / - Almaty : "Evero" , 2017. - 140 p.
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8. Issayeva, L. A. Childhood diseases. IV part [: textbook / - Almaty: "Evero", 2017. - 185 p.

Additional:

1.Karen J. marcdante. Robert M. Kligeman. Nelson “Essential of Pediatrics” 7th edition 2015.
2.Joseph J.Zorc Schwartz`s “ Clinical Handbook of Pediatrics” fifth edition 2013.

Electronic resources:

1. Karen J. marcdante. Robert M. Kligeman. Nelson “Essential of Pediatrics” 7th edition 2015. el disc (CD-ROM).

8.Control:

Tests:

1. What type of diabetes is mainly diagnosed in childhood:
A. non-insulin dependent (NIDDM)
B. insulin-dependent (IDDM)
C. with an equal frequency of NIDDM and IDDM
D. no data available
2. Normal fasting blood glucose is:
A. 1,2-3,2 mmol / l
B. 3.3-5.5 mmol / l
C. 5,6-7,2 mmol / l
D. 7.3-8.5 mmol / l
3. Insulin-dependent diabetes mellitus is characterized by all of these symptoms, except:
A. thirst
B. polyuria

C. loss of body weight, despite the preservation or increased appetite
D. increased appetite and weight gain
4. Hypoglycemic coma is characterized by symptoms:
A. dry skin and mucous membranes
B. at the beginning of acute hunger, excitement, sweating
C. the smell of acetone breath
D. hypotension of skeletal muscles, decreased tone of the eyeballs
5. The causes of hypoglycemic coma can be all but:
A. an overdose of insulin
B. insufficient insulin dose
C. skipping meals or malnutrition due to insulin therapy
D. great physical activity
6. Urine sugar collect:
A. per day
B. the middle portion
C. in 12 hours
D. in 3 hours
7. Absolute insulin deficiency may be due to:
A. coronary heart disease
B. increased synthesis of TSH
C. physical inactivity
D. autoimmune damage to the pancreas
E. obesity
8. Glucose tolerance test is conducted with…:
A. 50 grams of glucose
B. 75 grams of glucose
C. 90 grams of glucose
D. 120 grams of glucose
E. 30 grams of glucose
9. Glucose tolerance test results are consistent with impaired tolerance:
A. fasting 5.1 after 2 hours 10.8 mmol / l
B. 6,55 on an empty stomach 2 hours of 6.94 mmol/l
C. of 4.88 on an empty stomach 2 hours of 6.66 mmol/l
D. fasting 6.94 after 2 hours 11.3 mmol / l
E. fasting 8.5 after 2 hours 12.9 mmol / l
10. A young man of 18 years after a cold appeared thirst, polyuria, General weakness, blood sugar level 16 mmol / l, urine 5%, acetone in the urine positive. Type of diabetes in the patient…:
A. type 1 diabetes
B. type 2 diabetes
C. type II diabetes in young people (mody)
D. secondary diabetes
E. impaired glucose tolerance

Answers:
1-B, 2-B. 3-D, 4-B, 5-B, 6-A, 7- D, 8-B, 9-A,10-A

№12

1. Theme: Clinical and laboratory diagnostics of anemic and hemorrhagic syndrome in children. Hematological syndrome in COVID-19.

2.Purpose: to teach etiology, pathogenesis, clinical manifestations of anaemic and hemorrhagic syndrome in children of different age groups, laboratory and instrumental diagnosis of these syndromes. Consolidate knowledge and skills in the diagnosis of these syndromes (questioning, physical examination data, palpation, percussion, auscultation, paraclinical study data).

3. Learning objectives:

The student should know:

- method of questioning a patient with anemia syndrome: the main, minor complaints, their pathogenesis;
- features of the history of the disease and life: the role of predisposing factors in the development of anemia;
- methods of examination of patients with anemia syndrome: pathogenesis and diagnostic significance of the detected changes;
- technique of palpation of peripheral lymph nodes;
- technique of palpation of the spleen;
- technique of palpation of the liver;
- methods of percussion of the liver, spleen boundaries;
- methodology for determining the size of the liver by Kurlov;
- technique to detect fluctuations in the joints;
- technique of percussion with the purpose of identifying pain with percussion on a flat tubular bones;
- palpation technique of the heart and large vessels;
- heart auscultation technique (difference of I tone from II, functional and organic heart murmurs);
- instrumental and functional methods of blood system research;
- laboratory methods of blood system research.

The student should be able to:

- make inquiries, identify complaints of a sick child or parent with diseases of the blood system;
- examine the patient: the position in bed, the color of the skin and visible mucous membranes, cyanosis, swelling, pulsation and swelling of the large vessels of the neck, a change in the heart, deformation of the bone and joint system and other signs;
- palpate peripheral lymph nodes and evaluate the diagnostic significance of the changes detected;
- palpate the spleen
- palpate the liver;
- perform percussion of the boundaries of the liver, spleen;
- determine the size of the liver by Kurlov;
- detect fluctuations in the joints;
- carry out the percussion with the aim of identifying pain with percussion on a flat tubular bones;
- perform palpation of the heart and large vessels;
- carry out auscultation of the heart (the difference of I tone from II, functional and organic heart murmurs);
- interpret laboratory analyses;
- issue a report on the lesson and report the results of the study.

4. Main questions of the topic:

1. Predisposing factors and causes leading to the development of anemia and hemorrhagic syndrome in children of different age groups.
2. Clinical manifestations of anaemic and hemorrhagic syndrome in children
3. Principles of questioning, anamnesis collection and objective method of examination of a sick child with anemic syndrome.
4. Principles of diagnosis of anaemic and hemorrhagic syndrome.
5. Laboratory characteristics of anaemic and hemorrhagic syndrome.

5. The main forms/methods/technologies of training to achieve the final result of the discipline: discussion of the lesson topic, TBL

6. Types of control to assess the level of achievement of the final result of the discipline: Evaluation of the oral survey; Testing.

7. Literature:

Basic:

1. Mazurin, A. V. Propaedeutics of childhood diseases. 1 volume [: textbook / - Almaty : "Evero" , 2017. - 144 p
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Additional:

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2.Joseph J.Zorc Schwartz`s “ Clinical Handbook of Pediatrics” fifth edition 2013.

Electronic resources:

1. Karen J. marcdante. Robert M. Kligeman. Nelson “Essential of Pediatrics” 7th edition 2015. el disc (CD-ROM).

8.Control:

a) tests:

1. For anemic syndrome is not typical:
A. Dystrophic changes in epithelial tissues
B. increased secretion of gastric juice
C. lowering the secretion of gastric juice
D. taste perversion
E. muscle weakness
2. To assess pallor in anemic syndrome, the most informative examination is:
A. skin
B. sclera
C. language
D. conjunctive
E. nail
3. Koylonihii is:
A) cross striation of nails

B) the bulge of nails in the form of watch glasses
C) spoon-shaped indentations of nails
D) brittle nails
E) fungal infection of the nails
4. For iron deficiency anemia is not typical:
A) dry skin, peeling
B) sharp atrophy of the papillae of the tongue (Gunter glossitis)
C) hypochromia and microcytosis
D) the perversion of taste and smell
E) pallor of the skin and mucous membranes
5. The main function of red blood cells is:
A) carbohydrate transport
B) participation in blood buffer reactions
C) participation in the processes of digestion
D) oxygen and CO2 transport
E) immune
6. The percentage of individual forms of white blood cells is called:
A) color indicator
B) leukocyte formula
C) hematocrit number
D) leukemic failure
E) ESR
7. The appearance in the blood of red blood cells of various sizes is called:
A) poikilocytosis
B) anisocytosis
C) microcytosis
D) macrocytosis
E) hypochromia
8. Color indicator is:
A) the ratio of the number of red blood cells to hemoglobin
B) the percentage of hemoglobin oxygenation
C) the ratio of young and mature neutrophils
D) the degree of saturation of erythrocytes with hemoglobin
E) the percentage of individual forms of leukocytes
9. Indicate changes in the general blood count that are not characteristic of iron deficiency anemia:
A) reduction in color
B) erythropenia
C) microcytosis
D) reduction of ESR
E) hypochromia
10. The destruction of red blood cells occurs in:
A) red bone marrow and liver
B) liver
C) spleen
D) the liver and spleen
E) red inert brain
11. Symptoms of anemia do not include:

A) shortness of breath
B) pallor
C) heartbeat
D) petechiae
E) hypersensitivity to cold
12. For iron deficiency is not typical:
A) hair loss
B) brittle nails
C) icteric
D) Koilonichia
E) the perversion of taste
Answers:
1-B, 2-D, 3-C. 4-B. 5-D, 6-B, 7-B, 8-D, 9-D. 10-D. 11-D.12-C.

b) Situational tasks:
Task1
A boy of 14, with complaints of weakness, fatigue, palpitations and shortness of breath with little exertion; desire to eat chalk.
Objectively: pallor of the skin and visible mucous membranes, the skin is dry, there are cracks in the corners of the mouth. Hair brittle, nails "gnarled." Pulse- 80 beats per minute, BP 90/70 mm.hg art. Heart sounds are muffled, rhythmic. Tongue crimson, clean. The abdomen is soft, sensitive to palpation in the epigastric region, somewhat swollen. Stools prone to diarrhea.
Questions:
What syndromes can be distinguished from this patient?
What disease can be thought of, given the combination of these syndromes?
What additional studies are needed to clarify the diagnosis?

Answer standard:
Task 1
1.Anemic syndrome.
2. Iron deficiency anemia
3. Methods of examination: complete blood count (erythrocyte hypochromia, anisocytosis with a predominance of microcytes, poikilocytosis);
FGS, X-ray examination of the stomach (atrophy of the gastric mucosa).

№13
1. Theme: Clinical and laboratory characteristics of myelo- and lymphoproliferative disorders in children.
2.Purpose: to teach etiology, pathogenesis, clinical manifestations of myeloid and lymphoproliferative syndromes in children of different age groups, laboratory and instrumental diagnosis of these syndromes. Consolidate knowledge and skills in the diagnosis of these syndromes (questioning, physical examination data, palpation, percussion, auscultation, paraclinical study data).
3. Learning objectives:
The student should know:

- method of questioning the patient with hemorrhagic, trombozitopenicescoe and myelo-and lymphoproliferative syndromes: major, minor complaints, their pathogenesis;
- peculiarities of anamnesis of disease and life: the role of predisposing factors in the development of hemorrhagic, trombozitopenicescoe and myelo-and lymphoproliferative syndromes;
- methodology of examination of patients with hemorrhagic, trombozitopenicescoe and myelo-and lymphoproliferative syndromes: pathogenesis and diagnostic significance of detected changes;
- technique of palpation of peripheral lymph nodes;
- technique of palpation of the spleen;
- technique of palpation of the liver;
- methods of percussion of the liver, spleen boundaries;
- methodology for determining the size of the liver by Kurlov;
- technique to detect fluctuations in the joints;
- technique of percussion with the purpose of identifying pain with percussion on a flat tubular bones;
- palpation of the heart and large vessels;
- heart auscultation technique (difference of I tone from II, functional and organic heart murmurs);
- instrumental and functional methods of blood system research;
- laboratory methods of blood system research.

The student should be able to:

- make inquiries, identify complaints of a sick child or parent with diseases of the blood system;
- examine the patient: the position in bed, the color of the skin and visible mucous membranes, cyanosis, swelling, pulsation and swelling of the large vessels of the neck, a change in the heart, deformation of the bone and joint system and other signs;
- palpate peripheral lymph nodes and evaluate the diagnostic significance of the changes detected;
- palpate the spleen;
- palpate the liver;
- perform percussion of the boundaries of the liver, spleen;
- determine the size of the liver by Kurlov;
- detect fluctuations in the joints;
- carry out the percussion with the aim of identifying pain with percussion on a flat tubular bones;
- perform palpation of the heart and large vessels;
- carry out auscultation of the heart (the difference of I tone from II, functional and organic heart murmurs);
- interpret laboratory analyses;
- issue a report on the lesson and report the results of the study.

4. Main questions of the topic:

1. Predisposing factors and causes leading to the development of myeloid and lymphoproliferative syndromes in children of different age groups.
2. Clinical manifestations trombozitopenicescoe and myelo-and lymphoproliferative syndromes in children
3. Principles of questioning, anamnesis collection and objective method of investigation of sick children or parents with myeloid and lymphoproliferative syndromes.
4. Principles of diagnosis and differential diagnosis of myeloid and lymphoproliferative syndromes.
5. Laboratory characteristics of myeloid and lymphoproliferative syndromes.

5. The main forms/methods/technologies of training to achieve the final result of the discipline: discussion of the lesson topic, TBL

6. Types of control to assess the level of achievement of the final result of the discipline: Evaluation of the oral survey; Testing.

7. Literature:

Basic:

1. Mazurin, A. V. Propaedeutics of childhood diseases. 1 volume [: textbook / - Almaty : "Evero" , 2017. - 144 p
2. Mazurin, A. V. Propaedeutics of childhood diseases. 2 volume] : textbook / - Almaty : "Evero" , 2017. - 172 p.
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8. Issayeva, L. A. Childhood diseases. IV part [: textbook / - Almaty: "Evero", 2017. - 185 p.

Additional:

1.Karen J. marcdante. Robert M. Kligeman. Nelson “Essential of Pediatrics” 7th edition 2015.
2.Joseph J.Zorc Schwartz`s “ Clinical Handbook of Pediatrics” fifth edition 2013.

Electronic resources:

1. Karen J. marcdante. Robert M. Kligeman. Nelson “Essential of Pediatrics” 7th edition 2015. el disc (CD-ROM).

8.Control:

a)tests:

1. The term lymphadenopathy means:
A) leukemic infiltration of the lymph nodes
B) lymphocytosis in the peripheral blood
C) high lymphoblastosis in sternal punctate
D) the increase in lymph nodes
E) suppuration of the lymph nodes
2. The basis of the division of acute and chronic leukemia is:
A. Nature of the disease
B. Age of patients
C. The degree of inhibition of normal hemopoiesis sprouts
D. The degree of anaplasia of the elements of hematopoietic tissue
3. In hemophilia A, there is a hereditary deficiency in the following blood coagulation factors:
A. XII
B. IX
C. V
D. VIII
E. VII
4. With leukemia, the following changes in the total blood count are possible:
A. reticulocytosis
V. increased platelet count
C. leukocytosis with a predominance of blast forms

D. increase of serum iron
E. reduction of serum iron
5. For the diagnosis of leukemia apply:
A. chest X-ray
B. ECG
C. sternal puncture
D. general urine analysis
E. FGDS
6. For petechial - spotted type of bleeding is not typical:
A. point hemorrhages on the skin, bleeding
B. hematomas and spontaneous bleeding
C. bruises on the skin
D. bleeding
E. ecchymosis
7. Only for hematomatous type of bleeding patogmonic:
A. hemarthrosis
B. hemorrhage in the subcutaneous tissue
C. hemorrhage in the retroperitoneal tissue
D. nasal bleeding
E. gingival bleeding
Answers:
1-D, 2-D, 3-D, 4-C, 5-C, 6-B, 7-A.

b) situational tasks:
Task 1.
Girl 12 years old.
Anamnesis data: from the 2nd pregnancy, urgent delivery. The neonatal period was normal. From the age of 4 years, manifestations of exudative diathesis were noted, which were associated with artificial feeding. After 1 year, the child periodically developed a rash and angioedema after ingestion of eggs, chocolate, and oranges. Often sick ARVI.
15 days before hospitalization she fell ill with follicular tonsillitis. Received antibiotic treatment, a lot of saw, including orange juice. On the 14th day of illness, the child had pain in the ankle joint and a rash on the legs.
Objective examination data on admission: on the legs, thighs, buttocks, symmetrical, more on the extensor surfaces and around the joints there is a copious exudative hemorrhagic rash. The ankles are swollen. In the lungs vesicular breathing, no wheezing. The number of breaths is 20 per minute. Heart sounds are loud. Pulse 80 per minute. HELL 110/60 mm RT. pillar. The abdomen is soft, painful on palpation around the navel, at the point of the gallbladder. Appetite reduced. Tongue moist, thickly coated with white bloom. The chair was after an enema, decorated with a small amount of mucus.
Formula of sexual development: Ma2, P2, A2, Me0.
The data of the survey:
Blood test: hem.-126 g / l, er.-4.0x1012 / l, col.p ..- 0.95, thrombus.-322x109 / l, leick.-7.4x109 / l, p.ya.-6%, sy.-64%. eoz.-8%, l.-18%. m-4%, ESR-24 mm / hour.
Duca bleeding time is 3 min, Burger blood clotting time: beginning-1 min, end-3 min.
Questions:
1. What are the syndromes can be identified in this patient?

2. What disease can be thought of, given the combination of these syndromes?
3. Additional examination.

Task 2.
Girl 8 years old.
Anamnesis data: a child from the 1st, normally proceeding pregnancy. Childbirth urgent. Grew and developed normally. 3-4 times a year I had ARVI.
A month before admission she began to complain of abdominal pain, appetite deteriorated. Short-term temperature rises up to 38-38.5 degrees without signs of catarrhal phenomena of the upper respiratory tract were periodically noted. To the doctor did not address. In the last days before hospitalization, pains in the right knee appeared, and the child was hospitalized. Data of objective examination at admission: the skin is pale with a grayish tint. Mucous pale. Single ecchymosis and scanty petechial rash on the legs, chest. The posterior cervical, submandibular, tonsillar, axillary and inguinal lymph nodes are palpable up to 1x2 cm, multiple, mobile. In the lungs vesicular breathing, no wheezing. The number of breaths is 25 per minute. Tachycardia. Muffled heart sounds, systolic murmur at the apex. BP 96/50 mm hg/art. pillar. The abdomen is soft, moderate pain on palpation in the navel. The liver protrudes from the edge of the costal arch 3 cm, the spleen - 2 cm. Urination free.
The data of the survey:
Blood test: hemoglobin –89 g / l, er.-2.5 h1012 / l, cp-0.9, platelets-15x109 / l, leyk.- 42.0 x109 / l, blasts-98%, lymph. - 2%, ESR-29 mm / hour.
Questions:
1. What are the syndromes can be identified in this patient?
2. What disease can be thought of, given the combination of these syndromes?
3. Additional examination.
Answers:
Task 1.
1. a) dermal, b) articular, c) abdominal, d) renal
2. Hemorrhagic vasculitis
3. a) blood test + bleeding time and clotting time,
b) a coagulogram, c) feces for coprology, d) urinalysis e) biochemical blood analysis (protein and its fractions, urea, creatinine, potassium, sodium.
Task 2.
1. a) dermal, b) articular, c) abdominal
2. Acute leukemia.
3. Bone marrow puncture, radiography of the right knee joint.

№14
1. Theme: Clinical disorders of the musculoskeletal system in children.
2.Purpose: to teach etiology, pathogenesis, clinical manifestations of deficient, inflammatory and dystrophic disorders of the musculoskeletal system in children of different age groups. To consolidate knowledge and skills in the diagnosis of diseases of the musculoskeletal system (questioning, physical examination data, palpation, percussion, paraclinical study data).
3. Learning objectives:
The student should know:

- method of questioning a patient with pathology of the musculoskeletal system: major, minor complaints, their pathogenesis;
- features of disease and life history: the role of predisposing factors in the development of diseases of the musculoskeletal system;
- methods of examination of patients with diseases of the musculoskeletal system: pathogenesis and diagnostic significance of the detected changes;
- technique features palpation of the muscular system: assessment of the degree of muscle development, determination of muscle strength, soft tissue turgor, muscle tone, trophic state and soreness of individual muscles;
- technique of palpation of the skull bones, the presence of a benevolent, measure its size, palpation of thorax (form, direction of ribs, intercostal spaces vyrazhennosti, epigastralny corner), spine (revealing the deviation of its axis in different departments), extremities;
- methodology for measuring the size of a large head from one side of rhombus to other its side (that is, between the parallel sides of a rhombus);
- method of palpation of joints (fever, soreness, swelling, active and passive movement);
- instrumental and functional methods of investigation of the musculoskeletal system;
- laboratory methods of investigation of the musculoskeletal system.

The student should be able to:

- make inquiries, identify complaints of patients with diseases of the musculoskeletal system: pain of individual muscles and joints, joint deformation, etc.;
- conduct examination of the patient: assessment of the proportionality of individual body parts and whole body, consistent inspection of skull, trunk, upper and lower extremities (estimation of their sizes, the identification of different forms), assessment of teeth, feature of bite, inspection of configuration of joints, the volume of movable joints, assessment of physical activity of the child, determination of the degree of development of muscles, volume of active motor activity;
- conduct palpation of the skull bones, the presence of a benevolent, measure its size, palpation of thorax (form, direction of ribs, intercostal spaces vyrazhennosti, epigastralny corner), spine (revealing the deviation of its axis in different departments), extremities;
- measure the size of the large crown: from one side of the rhombus to the other side (that is, between the parallel sides of the rhombus);
- perform palpation of the joints (fever, soreness, swelling, active and passive movement).
- interpret laboratory analyses;
- issue a report on the lesson and report the results of the study.

4. Main questions of the topic:

1. Predisposing factors and causes leading to the development of the musculoskeletal system in children of different age groups.
2. Clinical manifestations of disorders of the musculoskeletal system in children.
3. Inflammatory and dystrophic diseases of the musculoskeletal system in children of different age groups.
4. Rickets. Clinical symptomatology, diagnosis.
5. Arthritis and arthrosis. Clinical symptomatology, diagnosis.
6. Laboratory and instrumental diagnostics of musculoskeletal system in children of different age groups.

5. The main forms/methods/technologies of training to achieve the final result of the discipline: discussion of the lesson topic, PBL

6. Types of control to assess the level of achievement of the final result of the discipline: Evaluation of the oral survey; Testing.

7. Literature:

Basic:

1. Mazurin, A. V. Propaedeutics of childhood diseases. 1 volume [: textbook / - Almaty : "Evero" , 2017. - 144 p
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Additional:

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2.Joseph J.Zorc Schwartz`s “ Clinical Handbook of Pediatrics” fifth edition 2013.

Electronic resources:

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8.Control:

a)tests:

1. "Volatile" pain in the joints in combination with the damage to the heart is characteristic of:
A) rheumatism
B) rheumatoid arthritis
C) hemophilia
D) hemorrhagic vasculitis
2. Morning stiffness in the joints is typical for:
A) rheumatism
B) rheumatoid arthritis
C) hemophilia
D) hemorrhagic vasculitis
3. The limitation of limb dilution in the hip joints of a child at 3 months of age is most likely due to:
A) dysplasia of the hip joints
B) hemarthrosis of the hip joints due to birth injury
C) inflammation of the hip joints
D) osteomyelitis
4. Pathological is the curvature of the spine:
A) kyphosis
B) lordosis
C) scoliosis
5. Harrison furrow is a manifestation of:
A) rickets
B) pneumonia
C) diabetes

D) osteoporosis
6. Craniotabes is a symptom:
A) brain tumor
B) exsicosis
C) rickets
D) hydrocephalus
7. Bone rip is painful with:
A) thrombocytopenia
B) hemophilia
C) hemorrhagic vasculitis
D) leukemia
8. For arthritis, all of the above is characteristic, except:
A) arthralgia
B) swelling of surrounding tissues
C) pale skin over the joint
D) limitations of joint mobility
9. Hemarthrosis is typical for:
A) rheumatism
B) rheumatoid arthritis
C) hemophilia
D) hemorrhagic vasculitis
10. Osteoid hyperplasia with rickets does not appear as:
A) the development of frontal and parietal mounds
C) craniotabesa
C) thickenings at the place of transition of the bone part of the ribs to the cartilaginous
D) nodules in the radial epiphyses

Standards of answers:
1-A, 2-B, 3-A, 4-C, 5-A, 6-C, 7-D, 8-C, 9-C, 10-B.

***b*) situational tasks:**
Task 1
A child of 10 months, was in serious condition with cough, severe weakness, severe muscular hypotension.
Anamnesis of life: a child from the first pregnancy proceeding with nephropathy, the first term labor. The first 7 months Pregnant mother lived in the North, ate mostly canned food. Child up to 2 months. was breastfeeding mothers, from 2 months. artificial nutrition, adapted mixtures, from 3 months. - mostly cereals. The child often (every 2 months) suffered from acute respiratory viral infections, rarely visited the open air.
Anemnesis of the disease: The disease began at 1.5 months, when anxiety, sweating, and hypotension appeared. The child is lagging behind in psychomotor development, 2 weeks ago, had ARVI.
On examination: body temperature 37.4°C. The child is not sitting, not worth it. Body weight 8200 g, length 71 cm. The skin is dry, pale, the mucous membranes of the oral cavity are pale. Teeth - 0/2, broken off at the level of the necks, with defects of enamel. Head with pronounced frontal and occipital protuberances, “Olympic forehead”. Chest deformed - "chicken breast." When you try to plant a child, the spinal deformity (kyphosis) is visible. Legs: X-shaped curvature. The right leg is

1–1.5 cm shorter than the left one. The lower aperture of the chest is extended. Stomach spread. Breathing is noisy with an extended exhalation. Auscultation: on the background of hard breathing - dry wheezing. BH - 36 in 1 minute. Borders of the heart is not extended. Auscultation: blowing systolic murmur at the apex and at the V point. HR - 136 beats per min. Liver +4 cm from under the costal margin. Spleen - +2 cm from hypochondrium. Chair through the day, "sheep". Neuropsychic development: the child is indifferent, does not show interest in others, toys. Preverbal development is delayed.

Additional research data

Complete blood count: Hb - 100 g / l, Er - 3.5x1012 / l, L - 7.5x109 / l, pb - 2%, s - 31%, e - 1%, l - 63%, m - 3%, ESR - 10 mm / hour.

Urinalysis: the amount - 40.0 ml, relative density - 1,012, leukocytes - 2-3 p / z, erythrocytes - no.

Biochemical analysis of blood: total protein - 65.0 g / l, cholesterol -4.6 mmol / l, glucose - 4.3 mmol/l, calcium - 2.0 mmol / l, phosphorus - 1.1 mmol / l, Alkaline phosphatase - 950 U / l (norm - up to 600).

Radiograph of tubular bones: severe osteoporosis, blurring and vagueness of pre-calcification zones.

Questions:

1. What are the syndromes can be identified in this patient?
2. What disease can be thought of, given the combination of these syndromes?
3. Evaluate the results of laboratory and instrumental studies.

Task 2

The child is 8 months old. Complaints of poor sleep, appetite. Pallor of the skin is noted, frontal tubercles, Harrison's furrow, "rosary" are expressed, "bracelets" are formed. Hypotension of the abdominal muscles, limbs, "rachitic hump." No teeth. Large spring 1.5 x 1.5 cm, the edges are dense. "Babbling", knows some words, stands with support, but quickly gets tired.

Questions:

1. What disease can I think about?
2. Laboratory and instrumental research methods.

Task 3

Patient R., 6 years old, goes to the hospital on a regular basis again with complaints of pain in the area of the knee, ankle, wrist and hip joints, pain and movement disturbances in the hip joints, morning stiffness of the joints.

From the anamnesis, it is known that the child has been sick since the age of 2, when, after suffering from acute respiratory viral infections, there was a repeated fever, pain, swelling and movement disturbances in the knee, ankle and wrist joints. The articular syndrome persisted for 6 months and was accompanied by an increase in ESR, hyperleukocytosis, moderate anemia.

During this time, the girl with a positive effect received non-steroidal anti-inflammatory drugs, but it was temporary, later on there was involvement in the process of other joints.

When viewed in the hospital, the condition of the girl is severe. A child of undernutrition, lags behind in physical development. He uses crutches for hip joints. An increase in axillary (2x2 cm) and cubital (1.5x1.5 cm) lymph nodes is noted. There is an increase in local temperature, an increase in volume and a significant limitation of movement in the knee, ankle and wrist joints. In the lungs vesicular breathing, no wheezing. Borders of the heart: right - on the right edge of the sternum, upper - on the third edge, left - on the left midclavicular line. Heart sounds are rhythmic, sonorous, no noise, constant tachycardia up to 110 per minute. The abdomen is soft, painless on palpation, liver +5 cm, spleen +1 cm.

Questions:

1. What disease can I think about?

2. Laboratory and instrumental research methods.

Standards of answers:

Task 1

1. Articular syndrome, anemic syndrome, obstructive syndrome, intoxication syndrome
2. Rickets, IDA I level, SARS, obstructive bronchitis.
3. CBC: anemia of I degree Нb - 100 g / l.

B / h blood: abruptly increased alkaline phosphatase and acidosis reduced Ca p. B / h urine-aminoacidura and calciuria (increased excretion of Ca P amino acids.

Radiograph of the tubular bones: The gross defomation of the bone tissue is due to severe osteoid hyperplasia. frontal and parietal tubercles, rib beads, namyshelkovye thickening of the legs, bracelets on the forearms, strings of pearls on the fingers.

Task 2

1. Rickets
2. CBC, Urine sample, B/ch blood and radiograph of the tubular bones.

№15

1. Theme: Methods of skin and subcutaneous adipose tissue research. Semiotics of skin blemishes, subcutaneous fat patches, appendages in children of different age groups

2.Purpose: to teach etiology, pathogenesis, clinical manifestations of skin and subcutaneous disorders in children of different age groups. To consolidate knowledge and skills in the diagnosis of disorders of the skin (questioning, physical examination data, palpation, percussion, paraclinical study data).

3. Learning objectives:

The student should know:

- the methodology of questioning a patient with diseases of the skin: the main, secondary complaints, their pathogenesis;
- features of the history of the disease and life: the role of predisposing factors in the development of skin diseases;
- methods of examination of patients with skin diseases: pathogenesis and diagnostic significance of the detected changes;
- methods of examination of the skin, subcutaneous fat patches, appendages in children of different age groups;
- the method of determining the leather samples;
- methodology assessment of the degree of development, distribution, consistency of fat, turgor of soft tissues, the presence of edema, emphysema;
- the methodology of the study of the skin, subcutaneous fat patches: insufficient, excessive fat deposition, lipomatosis, lipodystrophy, seals.;
- the methodology of the study of the skin, subcutaneous fat patches: dystrophic, infectious and allergic skin changes, features of rashes in children
- instrumental and functional methods of skin examination.
- The student must be able to:
- to examine a child with pathology of the broken integuments: position in bed, , examination of the head, face, trunk,

- to assess the level of neuropsychic development of the child according to age, to assess consciousness,
- to assess the degree of development, distribution, consistency of fat, turgor of soft tissues, the presence of edema, emphysema;
- to assess whether there is insufficient, excessive fat deposition, lipomatosis, lipodystrophy, seals;
- identify pathological changes on the skin;
- evaluate the functions of the skin and skin integuments;
- draw up a protocol of the lesson and report the results of the study.

The student should be able to:

- to examine a child with pathology of the broken integuments: position in bed, , examination of the head, face, trunk,etc.
- to assess the level of neuropsychic development of the child according to age, to assess consciousness,
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- to assess whether there is insufficient, excessive fat deposition, lipomatosis, lipodystrophy, seals;
- identify pathological changes on the skin;
- evaluate the functions of the skin and skin integuments;
- draw up a protocol of the lesson and report the results of the study.

4. Main questions of the topic:

1. The main skin syndromes in children of different age groups.
2. Skin lesions in newborns and children of the first year of life.
3. Semiotics of skin color change in children
4. Semiotics of skin pigmentation changes in children
5. Semiotics of the appearance of rashes in children
6. Semiotics of rashes of non-infectious origin.
7. Assessment of skin and skin functions.

5. The main forms/methods/technologies of training to achieve the final result of the discipline: discussion of the lesson topic, PBL

6. Types of control to assess the level of achievement of the final result of the discipline: Evaluation of the oral survey;

7. Literature:

Basic:

1. Mazurin, A. V. Propaedeutics of childhood diseases. 1 volume [: textbook / - Almaty : "Evero" , 2017. - 144 p
2. Mazurin, A. V. Propaedeutics of childhood diseases. 2 volume] : textbook / - Almaty : "Evero" , 2017. - 172 p.
3. Mazurin, A. V. Propaedeuutics of childhood diseases. 3 volume [: textbook / - Almaty : "Evero" , 2017. - 140 p.
4. Mazurin, A. V. Propaedeutics of childhood diseases. 4 volume: textbook / - Almaty : "Evero" , 2017. - 120 p.
5. Issayeva, L. A. Childhood diseases. I part [: textbook / - Almaty : "Evero" , 2017. - 144 p
6. Issayeva, L. A. Childhood diseases. II part] : textbook / - Almaty : "Evero" , 2017. - 170 p.
7. Issayeva, L. A. Childhood diseases. III part [: textbook / - Almaty: "Evero" , 2017. - 140 p.
8. Issayeva, L. A. Childhood diseases. IV part [: textbook / - Almaty: "Evero", 2017. - 185 p.

Additional:

1.Karen J. marcdante. Robert M. Kligeman. Nelson “Essential of Pediatrics” 7th edition 2015.
2.Joseph J.Zorc Schwartz`s “ Clinical Handbook of Pediatrics” fifth edition 2013.

Electronic resources:

1. Karen J. marcdante. Robert M. Kligeman. Nelson “Essential of Pediatrics” 7th edition 2015. el disc (CD-ROM).

8.Control:

1. The main skin syndromes in children of different age groups.
2. Skin lesions in newborns and children of the first year of life.
3. Semiotics of skin color change in children
4. Semiotics of skin pigmentation changes in children
5. Semiotics of the appearance of rashes in children
6. Semiotics of rashes of non-infectious origin.
7. Assessment of skin and skin functions.