

GUIDELINES
for practical classes
for students

Educational discipline: «Pediatric gastroenterology, pulmonology and nephrology»

Field of knowledge: 22 "Health care"

Specialty: 222 "Medicine"

Department of Pediatrics No 2

Approved at the meeting of the Department of Pediatrics No. 2 on August 26, 2024, protocol No. 1

Considered and approved by: Cyclic methodological commission for pediatric disciplines

dated August 29, 2024, protocol No 1

Subject of the lesson:

" Diseases of gall bladder and pancreas in children "

Competencies:

Ability to collect medical information about the child and analyze data (complaints, life history, medical history)

The ability to distinguish and identify leading clinical symptoms and syndromes in diseases of the gallbladder and pancreas in children: gallstone disease, absolute and relative exocrine insufficiency of the pancreas in children.

The ability to determine the necessary list of laboratory and instrumental studies for the diagnosis of diseases of the gallbladder and pancreas in children and to evaluate their results.

The ability to determine the necessary list of laboratory and instrumental studies for the diagnosis of diseases of the gallbladder and pancreas in children and to evaluate their results.

Ability to establish a preliminary and clinical diagnosis of diseases of the gallbladder and pancreas in children.

Ability to determine the principles and nature of treatment of diseases of the gallbladder and pancreas in children and prevention of these diseases.

Ability to diagnose emergency conditions.

Ability to determine tactics and provide emergency medical care.

Ability to abstract thinking, analysis.

The ability to master and process modern knowledge.

Understanding the peculiarities of working with children of different ages.

The ability to make decisions when studying the discipline "Fundamentals of pediatric gastroenterology, pulmonology and nephrology"

The purpose of practical class

Formation of students' professional competencies for achieving program learning outcomes by controlling the initial level of knowledge in the process of discussing theoretical issues and testing, performing practical tasks and conducting control of the final level of training in solving situational problems on diagnosis, treatment and prevention of the most common diseases of the gallbladder and pancreas.

Equipment: PC with appropriate information support, reference materials, methodological recommendations, extracts from medical histories, a set of laboratory test results, manikin.

Lesson plan and organizational structure

Stage name	Description of the stage	Levels of assimilation	Timing
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Preparatory	- Organizational issues - Learning motivation: Diseases of the gallbladder and biliary tract are an extremely common pathology of internal organs, which is observed in 10-15% of the population of developed countries. First of all, this applies to children's age. Early diagnosis and treatment of pathology of the biliary system are of great clinical importance due to the possibility of preventing the transformation of functional disorders in the biliary system into organic pathology - into chronic cholecystitis and gallstone disease, which occurs when the colloidal stability of bile is disturbed and the inflammatory process is joined. Violation of the passage of bile involves the liver in the pathological process, which can lead to the development of an inflammatory process, fibrosis and, when the process is chronic, to the development of liver cirrhosis. Therefore, it is relevant to study the diagnostic criteria of the pathology of the hepatobiliary zone in order to timely prescribe etiological and pathogenetic treatment and prevent the development of life-threatening complications, carrying out sanitary and educational work with the population, aimed at eliminating risk factors for the occurrence of the disease. <i>Control of the initial level of knowledge - test control and oral survey.</i> Examples of test tasks: 1. The main symptom of exocrine pancreatic insufficiency is: A. Pain in the Shofar area B. An increase in leukocytes in the general blood test C. Nausea, vomiting D. A large volume of stool with droplets of fat 2. The gold standard for diagnosing exocrine pancreatic insufficiency is: A. Determination of fecal elastase-1 B. Ultrasound of abdominal organs C. Determination of fecal calprotectin D. Co-program	Introductory	15 min
		Reproductive	

	3. In 95% of cases, a violation of the exocrine function of the pancreas is associated with: A. Dysfunction of biliary tract B. Pathology of the gastroduodenal zone C. Cystic fibrosis D. Irritable bowel syndrome 4. Coprological symptoms of secondary exocrine insufficiency of the pancreas include: A. creatorea B. steatorrhea C. the presence of iodophilic flora D. a large amount of bile acids 5. The most informative method of diagnosing the pre-stone stage of gallstone disease in children is: A. clinical manifestations B. X-ray examination of the gallbladder C. ultrasound examination of the gallbladder D. retrograde cholecystopancreatography		
Main	Formation of professional competences: - demonstration of a thematic patient or review of extracts from medical histories of patients with the most common diseases of the gallbladder and pancreas; - evaluation of the results of laboratory studies; - on the basis of anamnesis, data of a clinical examination and the results of laboratory studies, the establishment of a preliminary clinical diagnosis - determining of factors and pathogenetic mechanisms of disease development; - appointment of treatment and management of the disease;	Introductive Reproductive Creative Reproductive Creative Reproductive Creative	100 min
Final	Control of the final level of preparation (Clinical cases): Task 1. A 12-year-old girl complains of aching pain in the stomach that occurs after eating fried food, nausea, one-time vomiting, weakness, rapid fatigue, frequent headaches. For the first time, the complaints listed above appeared 6 months ago,	Creative	20 min

	but she was not examined or treated. Since the age of 11, he has been under observation by a neurologist for autonomic dysfunction. Her mother suffers from chronic calculous cholecystitis (cholecystectomy was performed last year); father - chronic gastroduodenitis. Objectively: the general condition is satisfactory. The skin is of normal color, clean, moderately moist. Abdomen of normal shape. In the right hypochondrium, muscle tension and soreness at the point of projection of the gall bladder. The liver protrudes from under the edge of the costal arch by 1.5 cm, the edge of its soft and elastic consistency. Defecation 2 times a day, irregular. Ultrasound of the abdominal cavity: liver - smooth contours, parenchyma isoechoic, homogeneous (normal), vessels are not dilated, portal vein is not changed. Gall bladder: its walls are not thickened, homogeneous sediment. The common bile duct is not dilated - 1 mm. One hour after the choleretic breakfast, the area of the gallbladder decreased to less than 33% of its original volume. 1. Formulate the diagnosis. Specify the cause of the disease. 2. Give an interpretation of ultrasound. 3. Assign treatment to this child. Answer standard Functional disorder of the gallbladder: dysfunction of the gallbladder according to the hypokinetic type. As a result of disorders of neurohumoral mechanisms of regulation against the background of neurosis. During ultrasound, signs of cholestasis were detected. Diet, tonic drugs (1 month), holikinetics for 2 weeks, physiotherapy, blind sounding. Task 2. A boy, 14 years old, complains of pain in the right hypochondrium, which occurs after fried, smoked food and lasts for several hours, loss of appetite, nausea. The mentioned complaints appeared for the first time more than 2 years ago, but he did not receive treatment. The boy has been bothered by stomach pains for the last 2 weeks. The child does not follow the daily routine and diet. Mother - suffers from chronic cholecystitis;		
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	father - suffers from chronic gastroduodenitis; grandmother (mother's mother) - calculous cholecystitis. Objectively: the general condition is disturbed. Skin covers of normal color, clean. Abdomen of the usual shape, painful in the right hypochondrium. Liver + 2 cm, edge of soft-elastic consistency. Positive bladder symptoms. Ultrasound of abdominal organs: liver - parenchyma is homogeneous, isoechoic (normal), contours are even. Gallbladder with a fold in the lower third of the body, the wall is not thickened, homogeneous sediment. The common bile duct is not dilated - 1 mm. One hour after the choleretic breakfast, the area of the gallbladder decreased to less than 20% of its original volume. The common bile duct is not dilated - 1 mm. 1. Determine the diagnosis. Specify the cause of the disease. 2. Give an interpretation of ultrasound. 3. Assign treatment to this child. Answer standard Functional disorder of the gallbladder: dysfunction of the gallbladder according to the hypokinetic type. As a result of a violation of the diet, against the background of an abnormality in the structure of the gallbladder. During ultrasound, signs of cholestasis, an abnormality in the structure of the gallbladder were revealed. Diet, tonic drugs (1 month), holikinetics for 2 weeks, physiotherapy. Task 3. A 12-year-old boy has been complaining of recurring acute pain in the right hypochondrium for 6 months, which occurs after eating wrongly, decreased appetite, nausea, loose stools 2-3 times a day without pathological impurities. Objectively: the general condition is disturbed. The skin is pale, clean. Abdomen of normal shape, painful on palpation in the right and left hypochondrium. Positive bladder symptoms. Ultrasound of abdominal organs: liver - parenchyma is homogeneous, isoechoic, contours are even (normal). Gallbladder with a fold in the upper third of the body, the wall is not thickened - 1mm. The common bile duct is 1 mm, the pancreatic duct is 4 mm. 1. Preliminary diagnosis. 2. With what diseases is it advisable to carry out		
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	differential diagnosis and according to what criteria? 3. Assign a plan for an additional examination Answer standard Functional pancreatic disorder of the sphincter of Oddi. Diff. diagnosis with gallbladder dysfunction. Examination: clinical blood analysis, blood biochemistry, coprogram, elastase 1 - stool. General assessment of educational activity		
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Recommended Books

1. Nelson Textbook of Pediatrics, 2-Volume set, 21-th edition. By Robert M. Kliegman, Bonita M.D. Stanton, Joseph St. Geme and Nina F Schor. – Philadelphia, PA : Elsevier Inc., 2020 - 4264 p. (pp. 2071-2080)
ISBN-10 : 032352950X ISBN-13 : 978-0323529501
2. Pediatrics : textbook / O. V. Tiazhka, T. V. Pochinok, A. M. Antoshkina [et al.] ; edited by O. Tiazhka. – 3 rd edition, reprint. – Vinnytsia : Nova Knyha, 2018. – 544 pp. (pp. 386-402) : il. ISBN 978-966-382-690-5

Questions for student self-preparation for practical classes

1. The concept of exocrine pancreatic insufficiency
2. Classification of exocrine pancreatic insufficiency
3. Clinical picture and diagnosis of exocrine pancreatic insufficiency
4. Principles of treatment of exocrine pancreatic insufficiency
5. Definition, etiology and pathogenesis of gallstone disease in children.
6. Classification of gallstone disease in children.
7. Clinical picture and diagnosis of gallstone disease in children
8. Treatment of gallstone disease in children.

Methodical guidelines have been created as prof. Horobets N.I., as prof. Iemets O.V.