

OPTIMIZATION OF NON-INVASIVE AND MORPHOLOGICAL METHODS FOR EARLY DETECTION OF GALLSTONE DISEASES

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Annotatsiya: Maqolada mualliflarlar tomonidan o'rganilgan adabiyotlar ma'lumotlari keltirilgan. Ularda o't pufagining turli xil anomaliyalari, o't yo'llari kasalliklari va kasallanishda ushbu organda bo'ladigan morfologik, gistologik o'zgarishlar keltirilgan. O't yo'llarining rivojlanishi va normal anatomiyasi bo'yicha asosiy bilimga ega bo'lish juda muhim, bu bizga anatomik va embriologik anomaliyalarni yaxshiroq tushunish imkonini beradi. Operatsiya va diagnostika usullarini takomillashtirish turli xil anomaliyalar haqida batafsil ma'lumotni talab qiladi.

Abstract: The article presents the literature reviewed by the authors. They describe various anomalies of the gallbladder, diseases of the biliary tract and morphological and histological changes in this organ during its course. It is very important to have basic knowledge of the development and normal anatomy of the biliary tract, which allows us to better understand anatomical and embryological anomalies. Improving surgical and diagnostic methods requires detailed information about various anomalies.

Аннотация: В статье использованы сведения из изученной авторами литературы. Они представляют собой различные аномалии желчного пузыря, заболевания желчевыводящих путей, морфологические и гистологические изменения, возникающие в этом органе. Важно иметь базовые знания о развитии и нормальной анатомии желчевыводящих путей, которые позволят лучше понять анатомические и эмбриологические аномалии. Совершенствование методов работы и диагностики требует детальной информации о различных аномалиях.

Kalit so'zlar: O't pufagi, o't yo'llari, xoletsistektomiya, anomaliya.

Keywords: Gallbladder, bile ducts, cholecystectomy, anomaly.

Ключевые слова: желчный пузырь, желчевыводящие пути, холецистэктомия, аномалия.

Relevance of the study. Laparoscopic cholecystectomies are common, and it is important to be aware of changes in the gallbladder. However, there is very little literature on morphological changes in the gallbladder and their occurrence. These changes are usually asymptomatic and often lead to complications and, therefore, should be clinically significant (Prakash AV, Joshi DS 2013).[10] Therefore, awareness of noninvasive and morphological methods for early detection of gallstone disease will reduce the incidence and help re-examine such patients.

Materials and methods. Archive materials, dissertations, theses, scientific journal articles, abstracts of scientific and practical conferences and Internet data.

Methodology. The results of the scientific work are studied through comparative analysis, scientific conclusions are analyzed.

Results obtained. James Buxbaun, in his dissertation Biliary sarcoidosis: early diagnosis reduces the need for surgery, states, "We would like to share our recent experience with three cases of biliary sarcoidosis, which are important in the differential diagnosis of biliary obstruction. Granulomatous liver involvement is seen in 50–79% of sarcoidosis patients, but it is usually asymptomatic. Pathological involvement of the bile ducts is very unusual, mimicking primary biliary cirrhosis (PBC), primary sclerosing cholangitis (PSC), or extrahepatic biliary obstruction. Although the clinical presentation of biliary sarcoidosis is similar to these diseases, its natural history and response to therapy are markedly different, and correct diagnosis may preclude surgical evaluation." They also studied the first case, a 51-year-old white man with sarcoidosis and primary sclerosing cholangitis. He presented with profound jaundice and pruritus. He was referred for evaluation for expedited liver transplantation. He had been diagnosed

with sarcoidosis five years earlier, and noncaseating granulomas were found during a splenectomy for lymphoma. His B symptoms resolved when prednisone was started at 10 mg/day. One year later, he presented with jaundice, and endoscopic retrograde cholangiopancreatography (ERCP) showed bile duct beads, dilatation, and strictures. He was diagnosed with PSC and was subsequently maintained on ursodiol with normal liver function tests. Two weeks before admission, his prednisone dose was reduced to 8 mg/day. At presentation, his total bilirubin was 13.5, alkaline phosphatase 613, and perinuclear neutrophil cytoplasmic antibodies (p-ANCA) were negative. ERCP was performed, which revealed an area of small beads in the left intrahepatic ductal system. Given the relatively mild cholangiographic abnormalities in the setting of markedly abnormal liver tests, he was considered to have biliary sarcoidosis rather than primary sclerosing cholangitis. Their findings suggest that a correct diagnosis of biliary sarcoidosis minimizes the need for surgery. They encountered a patient initially diagnosed with primary sclerosing cholangitis, a patient suspected of having strictures secondary to bile duct stones, and a third patient with a malignant tumor. Two of the patients were initially referred for major surgery, but the clinical course, response to steroids, and cholangiography allowed the correct diagnosis of biliary sarcoidosis and allowed them to be managed nonoperatively.

In addition, the Russian Candidate of Medical Sciences Sharifgaliev, Ildar Askhadulovich, also conducted a research on the topic "Morphofunctional features of the gallbladder neck in cholecystitis". Despite the achievements of modern medical science and practical healthcare, their number is constantly growing. The causes of gallbladder neck obstruction are represented by a wide list of diseases and conditions of a congenital and acquired nature. Among them, the most common are stones in the gallbladder, hyperplastic processes of the mucous membrane, including tumors, sclerosis of the outlet of the organ as a result of chronic inflammation, congenital anomalies, as well as changes in the structure of the gallbladder and its duct. Thanks to this scientific work, an improved protocol

(standard) for morphological diagnosis of cholecystitis provides for preoperative ultrasound examination of the hepatobiliary zone, a comprehensive macro-, microscopic examination of surgical material and allows improving the quality of diagnostics of inflammatory diseases of the gallbladder. [2]

In her dissertation titled “Hybrid Methods of Surgical Treatment of Patients with Cholelithiasis Complicated with Choledocholithiasis,” Ozerova Daria Sergeevna aimed to improve the treatment outcomes of patients with cholelithiasis complicated with choledocholithiasis by performing laparoscopic cholecystectomy at the optimal time after endoscopic retrograde choledocholithoextraction using hybrid surgical techniques.

Next, Galiullin Artur Rifovnich in his doctoral thesis “Clinical and Functional Characteristics of Gallbladder and Biliary Tract Diseases in Young People and Ways of Prevention” optimized the system of measures for assessing the clinical, functional and psycho-emotional characteristics of gallbladder and biliary tract diseases in young people and their prevention. The dissertation study included young people aged 18-35. Patient selection was carried out in two stages. At the first stage, a screening questionnaire for diseases of the biliary tract (BD) was developed, the questions were agreed with sociologists to eliminate conflicts with the criteria of sociological research. A total of 1262 people were interviewed, of which 346 (27.4%) had clinical signs of a specific disease of the gastrointestinal tract. At the second stage, a selection was made: individuals with signs of damage to the BD. This group included 96 (7.6%) people, who subsequently underwent a comprehensive examination. The first group consisted of 32 patients with dyskinetic diseases of the biliary tract (BD) according to the classification adopted by the Rome Consensus (1999). The second group included 64 individuals diagnosed with “Chronic noncalculous cholecystitis” (CNCC) according to the classification of Ya.S. Zimmerman (2002). As a result of this work, the clinical and functional characteristics of biliary diseases in young people were studied. When studying the subjective picture of the disease, it was noted that the leading

manifestation of biliary pathology in patients was pain syndrome in combination with dyspeptic (100%) and asthenovegetative (76.6%) syndromes.[4]

The article “Morphological spectrum of gallbladder lesions and their relationship with cholelithiasis” by Digvijay Singh Dattal and his co-authors is presented. According to them, cholelithiasis is a chronic recurrent disease of the hepatobiliary system. Disorders of cholesterol, bile acids and bilirubin metabolism are responsible for the formation of stones in the gallbladder. Gallstones are a major cause of morbidity and mortality worldwide.

Lezhnev D.A., and Chukeyev I.V. In the article "Diagnosis of stenotic lesions of the bile ducts", it is noted that currently the number of patients with diseases of the gallbladder and bile ducts is 26-30% of patients with pathologies of the digestive tract requiring surgical treatment.

A study by Brian Ngure Kariuki et al., published in the journal “The Effect of Age on Gallbladder Morphometry,” concluded that “Morphometric characteristics of the gallbladder, such as length, diameter, and volume, are determinants of gallbladder function. These parameters change with age and may explain the age-related decrease in gallbladder contractility.

Zaprudnov A. M., Kharitonova L. A. (2008) noted a high percentage (21%) of cholelithiasis formation in children with sludge over a 5-year period, especially against the background of anomalies in the development of the biliary tract. Dynamic echocholecystography allows for an objective assessment of the motor-evacuator function of the biliary tract. For this, an ultrasound examination of the gallbladder is performed on an empty stomach and after a choleretic breakfast, until the minimum volume is reached and the filling phase begins.

This is how Ruban Alexander Petrovich describes cholelithiasis in his scientific work entitled “Features of vegetative regulation and quality of life in patients with cholelithiasis before and after cholecystectomy in the outpatient phase”. Cholelithiasis ranks third after cardiovascular diseases and diabetes.

Mironova Ekaterina Dmitrievna in her scientific study entitled “Optimization and prediction of the effectiveness of litholytic drug therapy in patients with cholelithiasis based on clinical, instrumental, laboratory and immunomorphological data” noted the relevance of cholelithiasis. Cholelithiasis (gallstone disease) is one of the most important medical and social problems of modern society. Cholelithiasis is accompanied by a decrease in the quality of life of patients, the development of various complications and an increase in the number of surgical interventions, which imposes a significant financial burden on the global healthcare system.

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