SCHOLASTIC:
Journal of Natural and Medical Education
Volume 2 Issue 3, Year 2023 ISSN: 2835-303X
https://univerpubl.com/index.php/scholastic

Ultrasound Comparative Morphometry in Patients with Conventional Cholecystectomy

Akhmedov F. Kh., Jumaeva M. M.
Bukhara State Medical Institute, Bukhara branch of RNCEMP

Article Information

Received: January 29, 2022
Accepted: February 30, 2023
Published: March 31, 2023

Keywords: *Morphometry, Patients.*

ABSTRACT

In recent years, in various fields of clinical medicine, a low-cost, highly informative method of ultrasound (synonyms: echography, sonography, ultrasonography) has have become widespread, diagnostic value, which is confirmed by the works of many domestic and foreign authors [1,4,6,7,8,10,11]. Ultrasound is elastic vibrations of particles of a material medium with a frequency of more than 20 kHz, i.e. above the threshold of perception by the human ear. Modern ultrasound equipment is based on the principle of echolocation, and all diagnostic devices operate in pulsed mode. It is important to know that in the emitting mode, the device's sensor works only 0.1% of the cycle time, while in the receiving mode - 99.9%. This rhythm of work is one of the factors that determine the safety of ultrasound examinations. Ultrasonography allows diagnosing hypertrophic diseases of the gallbladder, such as adenomyomatosis and cholesterol. The polypoid form of gallbladder cholesterol is especially well detected, and it is always necessary to conduct a differential diagnosis with cholelithiasis. The main difference is that the cholesterol polyp(s) do not produce an acoustic shadow and are not displaced by the position of the patient's body changes.

Purpose of the study. The study of morphofunctional changes inside and extrahepatic bile ducts in cholelithiasis.

Materials and research methods. Materials were collected from the medical history of patients of the surgical department of the RRCEMMP BF with a diagnosis of acute cholelithiasis, static processing and the criterion of significance for the difference in indicators. Ultrasound devices Mindray 6600, EsaoteMylabX6, EsaoteMylab 40.

Research results. Gallstones are found in people with a picnic physique, a tendency to be overweight. Overweight is observed in approximately 2/3 of patients. Two factors contribute to the formation of gallstones, these are endogenous and exogenous [1-2]. Gallstone disease (GSD) is the most common disease of the gastrointestinal tract, which has a clear upward trend. Despite the solution of tactical and technical issues related to the diagnosis and treatment of cholelithiasis, this pathology retains its place among the problems of abdominal surgery [3]. In the structure of emergency medical care, acute calculous cholecystitis (ACC) ranks third after acute appendicitis and acute pancreatitis, patients with ACC account for about 20-50% of the total number of patients with surgical disease. In cholelithiasis, the bile ducts and ducts, and the greater duodenal incision are affected [4-5]. In the diagnosis of diseases of the biliary system, the significance of the clinical picture of diseases and the results of laboratory tests is not in doubt. At the same time, the differentiation of inflammatory and non-inflammatory diseases of the gallbladder using instrumental, radiation and other research methods, as well as in cases of acute cholecystitis, determining the degree of damage, is an integral part of the modern tactics of

© 2023 by the authors; licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution License (http://creativecommons.org/licenses/by/4.0/).

choosing the treatment of patients [6]. Differentiation of calculous and acalculous cholecystitis is carried out by the presence of hyperechoic structures in the gallbladder cavity with or without acoustic shadowing. In difficult cases of differentiation of cholelithiasis, cholesterosis and polyps of the gallbladder, a method of differentiation based on changes in the dynamics of the echographic picture and the B-mode of the pathological structure of the gallbladder while taking ursosan for 14–18 days was proposed [7]. A pharmacological test makes it possible to ascertain polyposis of the gallbladder by the non-displacement of the formation, with a change in the localization of the hyperechoic structure and an increase in the volume of the organ - to diagnose cholelithiasis, and in the case of a decrease in echogenicity and displacement of the formation - to establish the diagnosis of cholesterosis of the gallbladder. This method provides high accuracy in the diagnosis of cholelithiasis, cholesterosis and gallbladder polyposis. A pharmacological test makes it possible to ascertain polyposis of the gallbladder by the non-displacement of the formation, with a change in the localization of the hyperechoic structure and an increase in the volume of the organ - to diagnose cholelithiasis, and in the case of a decrease in echogenicity and displacement of the formation - to establish the diagnosis of cholesterosis of the gallbladder. This method provides high accuracy in the diagnosis of cholelithiasis, cholesterosis and gallbladder polyposis. A pharmacological test makes it possible to ascertain polyposis of the gallbladder by the non-displacement of the formation, with a change in the localization of the hyperechoic structure and an increase in the volume of the organ - to diagnose cholelithiasis, and in the case of a decrease in echogenicity and displacement of the formation - to establish the diagnosis of cholesterosis of the gallbladder. This method provides high accuracy in the diagnosis of cholelithiasis, cholesterosis and gallbladder polyposis.

Table 1, distribution of patients undergoing conventional cholecystectomy by sex and age

Age, years	Floor		Total	
	husband	**wives**	**Abs.**	**%**
18-30				
31-40		**2**	**2**	**5.9**
41-50		**3**	**3**	**8.82**
51-60	**6**	**8**	**14**	**41.17**
61-70	**3**	**6**	**9**	**26.47**
71-80	**1**	**4**	**5**	**14.7**
81 and older		**1**	**1**	**2.94**
Total	**10**	**24**	**34**	**100**

In a study of 34 patients with acute cholelithiasis during an ultrasound study, a change in the common bile duct and intrahepatic duct was determined, a change in the conduction in the table by age, by half before traditional cholecystectomy

Table 2

Age, years	FLOOR		TRADITIONAL CHOLECYSTECTOMY			
			CBP extension		**Intrahepatic ducts expansion**	
	m	**and**	**m**	**and**	**m**	**and**
18-30						
31-40		**2**		**1**		**1**
41-50		**3**		**1**		**3**
51-60	**6**	**8**	**3**	**4**	**5**	**7**
61-70	**3**	**6**	**4**	**4**	**3**	**5**
71-80	**1**	**4**	**1**	**4**	**1**	**4**

© 2023 by the authors; licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution License (http://creativecommons.org/licenses/by/4.0/).

81 and older		**1**		**1**		**1**
Total	**10**	**24**	**8**	**15**	**9**	**21**

A fistula change of 7 mm is usually considered a pathological dilatation, although the diameter of the bile duct increases in elderly patients and after cholecystectomy. In 98% of adults, the common bile duct has a diameter of 5 mm or less at the hilum of the liver, while near the head of the pancreas, the common bile duct in normally looks slightly narrowed. The intrahepatic duct is proximal to the common hepatic duct with a diameter of 2-3 mm. The cystic duct goes along with the common bile duct until their lumens merge, thus, with cholecystectomy, a different length of the cystic duct in situ is obtained. In the stump of the cystic duct, stones can form that compress the common bile duct and cause jaundice.

Table-3, Changes in the CBD and intrahepatic ducts after conventional cholecystectomy surgery.

Age, years	**FLOOR**		**TRADITIONAL CHOLECYSTECTOMY**			
			CBP extension		**Intrahepatic ducts expansion**	
	m	**and**	**m**	**and**	**m**	**and**
18-30						
31-40		**2**				
41-50		**3**				
51-60	**6**	**8**	**6**	**7**	**6**	**7**
61-70	**3**	**6**	**2**	**4**	**2**	**4**
71-80	**1**	**4**	**1**	**1**	**1**	**1**
81 and older		**1**		**1**		**1**
Total	**10**	**24**	**9**	**13**	**9**	**13**

According to the 3rd table, it is determined that in patients over 50 years old, in some cases after surgery, the CBD and intrahepatic ducts do not change, they remain dilated mainly at the age of 51-60, 61-70 years and above, by percentage after laparotomy, most cases of ducts remain expanded.

Conclusions. The studied ultrasound signs of the gallbladder and in its wall, such as the length of the gallbladder, its area and volume, indicate the possibility of their use in the differential diagnosis of chronic and acute calculous cholecystitis, as well as obstruction of the biliary tract. In patients with acute calculous cholecystitis and with obstruction of the biliary tract, the wall of the gallbladder thickens with an increase in size (length, area, volume) and has a high level of correlation with the degree of increase in intravesical pressure. The control of the functioning of the biliary tract, as well as other body systems, is based on different levels of regulation. Obviously, operational interventions lead to significant changes in the mechanisms of functioning of this system. Experimental and clinical observations indicate that

List of references

1. Алиджанов Ф.Б., Баймурадов Ш.Э. Малоинвазивные технологии в экстренной хирургии острого калькулёзного холецистита//Шошилинч тиббиёт ахборотномаси.-2009.-№1.- С.52-55.

2. Алтыев Б.К., Рахимов О.У., Асамов Х.Х. Диагностика и лечение внутрибрюшных осложнений в хирургии желчных путей // Вестник экстренной медицины. -2012.- №4 – С. 73-78.

© 2023 by the authors; licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution License (http://creativecommons.org/licenses/by/4.0/).

3. Анарбаев С.А., Шамсиев Ж.З. Острый холецистит у больных пожилого и старческого возраста // Медицинские науки. -2015.-№2.- С. 46-50.
4. М. М. Жумаева Диагностика заболеваний щитовидной железы при помощи ультразвукового иследования// Барқарорлик ва Етакчи Тадқиқотлар онлайн илмий журнали.//2022.- Т. 2. – №.2.-С-194-198.
5. М. М. Жумаева, Ш.Х. Даминов, Ж.Х. Адуллаев Эффективность Применение Цифровой Рентгенографии При Хронической Обструктивной Болезни Легких //CENTRAL ASIAN JOURNAL OF MEDICAL AND NATURAL SCIENCES //2022.-Т.3.-№.3.-С-52-58. https: //doi.org/ 10.17605/ OSF.IO/CJGMS
6. Jumaeva M. M. Akhmadova M. A. THE POSSIBILITIES OF USING DIGITAL RADIOGRAPHY IN THE DIAGNOSIS OF CHRONIC OBSTRUCTIVE PULMONARY DISEASE //Modern Journal of Social Sciences and Humanities ISSN: 2795-4846.- ISSN: 2795-4846- // Vol. 4. 2022.-P-99-103. https://mjssh.academicjournal.io/index.php / mjssh
7. Ахмедов Ф. Х. 2. Жумаева М. М. Узи При Жкб, Острый Калькулѐзный Холецистит, Выбор Больных Для Лхэ, Изменение Желчных Протоков До И После Операции //CENTRAL ASIAN JOURNAL OF MEDICAL AND NATURAL SCIENCES- 2022.- Т.3. – №.3.- С-322-324.
8. https: //cajmns. centralasianstudies.org/index.php/CAJMNS/ article/view/788//
9. Ахмедов Ф. Х. 2. Жумаева М. М. Сравнительная Морфометрия Внутри И Внепеченочных Желчных Путей, Желчных Сфинктеров У Больных С ЖКБ, Подвергшихся Классической И Лапараскопической Холецистэктомии //RESEARCH JOURNAL OF TRAUMA AND DISABILITY STUDIES// 2022.- стр 231-241.
10. J.M. Mustaqimovna Diagnostics of Thyroid Diseases with the Help Ultrasonic Examination // Research Journal of Trauma and Disability Studies Vol 1(10), 2022.- P.129-134. http://journals.academiczone.net/index.php/rjtds/article/view/358
11. Ф. Х. Ахмедов, М. М. Жумаева МОРФОЛОГИЧЕСКИЕ ИЗМЕНЕНИЕ ПРИ ЖЕЛЧЕКАМЕННОЙ БОЛЕЗНИ // EURASIAN JOURNAL OF MEDICAL AND NATURAL SCIENCES- ISSN 2181-287X- 2 (12) 2022. – С - 274-283. https://doi.org/10.5281/zenodo.7381138
12. Ф. Х. Ахмедов, М. М. Жумаева Ультразвуковая Диагностика Желчного Пузырья При Желчекаменной Болезни // AMALIY VA TIBBIYOT FANLARI ILMIY JURNALI - ISSN: 2181-3464.-1(7). -2022.-Б.-15-21.
13. Ф. Х. Ахмедов, М. М. Жумаева Сравнительная Морфометрия Внутри И Внепеченочных Желчных Путей И Желчных Сфинктеров У Больных С ЖКБ // AMALIY VA TIBBIYOT FANLARI ILMIY JURNALI - ISSN: 2181-3464.-1(7). -2022.-Б.-22-27.
14. Akhedov F.Kh., Jumaeva N. Kh. Jumaeva M.M. COMPARATIVE MORPHOMETRY OF THE BILIARY TRACTS AND BILE SPHINCTERS IN PATIENTS WITH GSD UNDERGOING CLASSICAL AND LAPAROSCOPIC CHOLECYSTECTOMY.// Uzbek Scholar Journal- (https://uzbekscholar.com/index.php/uzs/article/view/466)

© 2023 by the authors; licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution License (http://creativecommons.org/licenses/by/4.0/).

15. Ахмедов Ф. Х., Жумаева М. М. Абдуллаев Ф.Ф. Абдоминальная Боль При Желчнокаменной Болезни И Постхолецистэктомическом Синдроме//AMALIY VA TIBBIYOT FANLARI ILMIY JURNALI- ISSN: 2181-3450.-1(7). -2022.-С.-236-241.
16. Ф.Х. Ахмедов, М.М. Жумаева Биллиарный Сладж// Research Journal of Trauma and Disability Studies- ISSN: 2720-6866.-1(12). -2022.-С.-73-82.
17. Махмудова Г. Ф., Темирова, Д. В., &Баротова, Ш. Б. (2021). Бачадон бўйни хавфли ўсмаларининг ѐшга хосхусусиятлари//Academic research ineducational sciences // 2(5).-Б.-186-196. https://doi.org/10.24411/2181-1385-202100871
18. Maxmudova G.F.,Soxibova Z.R., Mamedov U.S., Nurboboyev A.U. Fertil va keksa yoshli ayollarda bachadon bo'yni xavfli o'smalari tahlili (Buxoro viloyatida)//Oriental Renaissance: Innovative, educational, natural and social sciences//-2021.-V 8.-B. 175-184.
19. Nurboboyev A.U., Makhmudova G.F. Miniinvazive approach in the complex treatment of tumor and stone etiology of mechanical jaundice// International journal on Orange technology// Vol 3. Issue 9. Sep.2021.-P. 85-90
20. М.А. Ахмадова, А.Т. Чўлиев, Ж.Р. Нуров, Д.К. Худойбердиев Лучевая диагностикаэхинококкоза печени./Биология ва тиббиѐт муаммолари.2019,№4.2(115)с.20-25
21. Нарзиева Д.Ф. Значение Иммуногистохимических маркеров при метастазировании рака молочной железы в легкие.// Oriental Renaissance:Innovtive,educational,natural and social sciences.// -2021 Vol.1-С.170-175
22. Xalikova Feruza. Current concepts of breast cancer risk factors//International journal of philosophical studies and social sciences//2021.- Vol 1.-P.57-66.
23. Z.R. Sokhibova, M.R. Turdiyev, (2021). Some Features Of Laboratory Indicators Of Micro And Macro-Elementary Condition Of The Organism Of Female Age Women Innormality And In Iron Deficiency. The American Journal of Medical Sciences and Pharmaceutical Research, 3(02), MO145.
24. Mamedov U.S., Pulatova D.SH. The Results of Cancer Treatment of the Oral Caviti Tumors in //the Republic of Uzbekistan European journal of Pharmaceutical and Medical Research. - 2019. -6(9). - P. 326-329.
25. Narziyeva D.F., Jonibekov J.J.; Morphological features of tumor in different treatment options for patients with locally advanced breast cancer // Middle European scientific bulletin.Volume 7-2020-Dec. – P. 105-10
26. Nurov J.R., Khalikova F.S. Long-term results of surgical treatment patients with stomach cancer // Вестник науки и образования. – 2020. – №23-2(101). – С. 85-89.Modern Journal of Social Sciences and Humanities103
27. R. R. Navruzov. Morphological and morphometric changes of the stomach layer of one monthly white rats // Journal For Innovative Development in Pharmaceutical and Technical Science (JIDPTS). Volume:4, Issue:5, May:2021 pp :(7-10)

© 2023 by the authors; licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution License (http://creativecommons.org/licenses/by/4.0/).

28. R. R. Navruzov. Lymphothorp therapy in the complex of treatment of purulent inflammatory diseases of the hand in outpatient conditions // New day in medicine 30.2020
29. Rakhmonovna, S. Z., & Sharipovna, A. N. (2020). Characteristics of exchange of essential microelements of copper and zinc in healthy fertilized women and women with combined copper and zinc deficiency state. European Journal of Molecular & Clinical Medicine, 7(1), 3332-3335.
30. Nurov Jamshid Raxmatovich, Narzieva Dilnoza Fakhriddinovna. The Significance of Immunohistochemical Markers in the Treatment of Breast Cancer // International journal on orange technology. – 2021. – Vol. 03(9). – P. 69-72.
31. Nurov Jamshid Raxmatovich, Ahmadova Maftuna Amin qizi. Features of Anatomy of the Greater Omentum // International journal on orange technology. – 2021. – Vol. 03(9). – P. 66-68.
32. Nurov Jamshid Raxmatovich, Narzieva Dilnoza Fakhriddinovna. Immediate Results of Surgical Treatment of Gastric Cancer // International journal on orange technology. – 2021. – Vol. 03(9). –P. 62-65.
33. Sokhibova, Z. R., & Turdiyev, M. R. (2021). Some Features Of Laboratory Indicators Of Micro And Macro-Elementary Condition Of The Organism Of Female Age Women Innormality And In Iron Deficiency. The American Journal of Medical Sciences and Pharmaceutical Research, 3(02), 140-145.
34. Khalikova Feruza Sharofovna, Abdullaev Khabibullo Narzullayevich. Early Diagnosis and Treatment of Gastric Cancer in Modern Oncology // Journal of Innovations in Social Sciences Volume: 01 Issue: 04 | 2021 –C. 46-50.
35. Xudoyberdiyev Dilshod Karimovich CHARACTERISTICS OF MORPHOMETRIC PARAMETERS OF THE WHITE RAT'S STOMACH IN THE EARLY POSTNATAL PERIOD//Тиббиѐтда янги кун// 2 (34/3) 2021 C-17-23

© 2023 by the authors; licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution License (http://creativecommons.org/licenses/by/4.0/).