New Day in Medicine
Новый День в Медицине
NDM

TIBBIYOTDA YANGI KUN

Ilmiy referativ, marifiy-ma'naviy jurnal

AVICENNA-MED.UZ

ISSN 2181-712X.
EiSSN 2181-2187

11 (61) 2023

ТИББИЁТДА ЯНГИ КУН

НОВЫЙ ДЕНЬ В МЕДИЦИНЕ

NEW DAY IN MEDICINE

Илмий-рефератив, маънавий-маърифий журнал
Научно-реферативный,
духовно-просветительский журнал

УЧРЕДИТЕЛИ:

БУХАРСКИЙ ГОСУДАРСТВЕННЫЙ МЕДИЦИНСКИЙ ИНСТИТУТ
ООО «ТИББИЁТДА ЯНГИ КУН»

Национальный медицинский исследовательский центр хирургии имени А.В. Вишневского является генеральным научно-практическим консультантом редакции

Журнал был включен в список журнальных изданий, рецензируемых Высшей Аттестационной Комиссией Республики Узбекистан (Протокол № 201/03 от 30.12.2013 г.)

11 (61)

2023

ноябрь

www.bsmi.uz
https://newdaymedicine.com E:
ndmuz@mail.ru
Тел: +99890 8061882

Received: 20.10.2023, Accepted: 27.10.2023, Published: 10.11.2023.

UDC 616.366-003.7-089-06

SOME REASONS POSTCHOLECYSTECTOMY SYNDROME

Khamdamova M.T., Ismailov U.S., Yangibaev O.Z.

[1]Bukhara State Medical Institute named after Abu Ali ibn Sina, Uzbekistan, Bukhara, st. A. Navoi. 1 Tel: +998 (65) 223-00-50 e-mail: info@bsmi.uz
Urgench branch of the Tashkent Medical Academy Uzbekistan, Khorezm region, Urgench city, Al-Khorezmi street No. 28 Tel: +998 (62) 224-84-84 E-mail: info@urgfiltma.uz

✓ ***Resume***

Today calculous cholecystitis is successfully diagnosed and is treated by laparoscopic cholecystectomy (LCHEC) in up to 95-98,7% of cases. But, according to numerous reports, this is not always the case, especially in the long term after surgery Due to the development of recurrent CLT It should be especially emphasized that despite usually performing LCHEC only for uncomplicated (UC) CCLT.

Without even mentioning such a high percentage of the so-called controversial concept as "post cholecystectomy syndrome" (PCHECS), occurring in up to 51.3% or more cases, Which force patients to continue treatment after surgery, even sometimes they undergo re-operation, mainly for choledochlitiases (CDL) and especially stenosis of the papilla vatere (SPV). This means that there are still some problems in the treating CCLT

In the article, based on the study and clarification of some mechanisms of the formation of gallstones and their migration, taking into account the anatomical data of the bile ducts, the opinion is expressed that at the beginning of the disease, cholelithiasis, as well as relapse of the disease after removal of stones in various ways, are stagnation of bile, which served as the onset of the disease cholelithiasis and also the cause of relapse of the pathology.

Keywords: calculous cholecystitis, choledochlitiases, postcholecystectomy syndrome papillosphincterotomy, papillosphincteroplasty, choledochoduodenoanastomosis.

НЕКОТОРЫЕ ПРИЧИНЫ ПОСТХОЛЕЦИСТЭКТОМИЧЕСКОГО СИНДРОМА

Хамдамова М.Т., Янгибаев О.З., Исмаилов У.С.

Бухарский государственный медицинский институт имени Абу Али ибн Сины, Узбекистан, г. Бухара, ул. А. Навои. 1 Тел: +998 (65) 223-00-50 e-mail: info@bsmi.uz
Ургенчский филиал Ташкентской медицинской академии Узбекистан, Хорезмская область, город Ургенч, улица Ал-Хорезми №28 Тел: +998 (62) 224-84-84 E-mail: info@urgfiltma.uz

✓ ***Резюме***

Сегодня калькулезный холецистит успешно диагностируется и лечится с помощью лапароскопической холецистэктомии (ЛХЭК) в 95-98,7% случаев. Но, согласно многочисленным сообщениям, это не всегда так, особенно в отдаленные сроки после операции из-за развития рецидива ХЛТ. Следует особо подчеркнуть, что, несмотря на то, что обычно ЛХЭК проводят только при неосложненной (ЖКБ) ХЛТ.

Даже не упоминая о таком высоком проценте так называемого спорного понятия, как "постхолецистэктомический синдром" (ПХЭК), встречающегося в 51,3% и более случаев, которые вынуждают пациентов продолжать лечение после операции, даже иногда они подвергаются повторной операции, главным образом по поводу холедохолитиаза (ХДЛ) и особенно стеноза желчного пузыря. Фатерового соска (ФС). Это означает, что все еще существуют некоторые проблемы при лечении ХХЛТ.

В статье, основанной на изучении и уточнении некоторых механизмов образования камней в желчном пузыре и их миграции, с учетом анатомических данных желчных протоков, высказано мнение, что в начале заболевания желчнокаменная болезнь, а также

рецидив заболевания после удаления камней в различных путями, являются застой желчи, который послужил началом заболевания желчнокаменной болезнью, а также причиной рецидива патологии.

Ключевые слова: калькулезный холецистит, холедохлитиазы, постхолецистэктомический синдром, папиллосфинктеротомия, папиллосфинктеропластика, холедоходуоденоанастомоз.

ПОСТХОЛЕЦИСТЕКТОМИК СИНДРОМИНИНГ БАЪЗИ САБАБЛАРИ

Хамдамова М.Т., Янгибаев О.З., Исмаилов У.С.

Абу али ибн Сино номидаги Бухоро давлат тиббиёт институти Ўзбекистон, Бухоро ш., А.Навоий кўчаси. 1 Тел: +998 (65) 223-00-50 e-mail: info@bsmi.uz
Тошкент тиббиёт академияси Урганч филиали Ўзбекистон, Хоразм вилояти, Урганч шаҳри, Ал-Хоразмий кўчаси 28-уй Тел: +998 (62) 224-84-84 E-mail: info@urgfiltma.uz

✓ ***Резюме***

Бугунги кунда калкулёз холецистит 95-98,7% ҳолларда Лапароскопик холецистэктомия (ЛХЭК) билан муваффақиятли ташхисланади ва даволанади. Аммо, кўплаб маълумотларга кўра, бу ҳар доим ҳам шундай эмас, айниқса операциядан кейинги узоқ муддатда ХЛТ такрорланишининг ривожланиши туфайли. Шуни таъкидлаш керакки, ЛХЭК одатда фақат асоратланмаган (ЎТК) ЛХЭК билан амалга оширилади. Беморларни операциядан кейин даволанишни давом эттиришга мажбур қиладиган 51,3% ёки ундан кўп ҳолларда учрайдиган "постхолецистэктомия синдроми" (ПХЭКС) каби мунозарали тушунчанинг бундай юқори фоизини эслатиб ҳам бўлмайди, ҳатто баъзида улар такрорий жарроҳлик амалиётини ўтказадилар, асосан холедохолитиаз (ХХЛ) ва айниқса ўт пуфаги стенози Фатер сўрғичи (ФС). Бу шуни англатадики, ХХЛТ даволашда ҳали ҳам баъзи муаммолар мавжуд.

Мақолада ўт йўлларининг анатомик маълумотларини ҳисобга олган ҳолда ўт тошлари ва уларнинг миграциясининг баъзи механизмларини ўрганиш ва аниқлаштириш асосида касалликнинг бошида ўт тош касаллиги, шунингдек, тошлар олиб ташланганидан кейин касалликнинг қайталаниши кузатилади.

Калит сўзлар: калкулёз холецистит, холедохлитиаз, постхолецистэктомия синдроми, папиллосфинктеротомия, папиллосфинктеропластика, холедоходуоденоанастомоз.

Relevance

Today uncomplicated (UC) calculous cholecystitis (CCLT) is successfully diagnosed (by clinical laboratory examination, ultrasound, CT, MRI. cholangiography, RPCG, etc.) and is treated mainly by laparoscopic cholecystectomy (LCHEC) in up to 95-98.7% of cases, how to speak very successfully (1, 3, 11, 13 and others). But, according to numerous reports, this is not always the case, especially in the long term period after surgery, due to the development of resediv - recurrent (or may be remaining - residual…!). choledochlitiases (RCDL), Vater's papilla (RVP) stenosis (VPS), etc. It should be especially emphasized that, they were observed namely after CHEC (relatively often after LCHEC) performed for uncomplicated CCLT, without even mentioning such a high percentage of the so-called controversial concept as “postcholecystectomy syndrome” (PCHECS), occurring in up to 51.3% or more cases [2,4,5]. Which force patients to continue treatment after surgery, even sometimes they undergo re-operation, mainly for CDL and (SPV) up to 10 - 15% [6,8,10]. In addition, for some reason it is not possible to perform LCHEC for CCLT, naturally, surgeons are forced to resort to open cholecystectomy (OCHEC) - It's there conversion.

Purpose of the study: To improve the quality of treatment of patients operated on for CCLT by reducing the case of PCHECS after CHEC (The result of both LCHEC and OCHEC).

Research objectives: To find out some of the reasons (PCHECS) for the unsatisfactory results LCHEC and OCHEC.

Materials and methods

We have performed and analyzed the results more than 14,000 LCHEC (Since 1994) and 5,084 OCHEC (mostly perfomed before 1995) for CCLT.

After them, 2149(11,26%) patients reported that, their condition did not improve completely after the operation. Of these, 1703 (12,16%) patients were after LCHEC, 446(8,77%) after OCHEC. More than half of whom (1008 patients) required serious examination (Clinical and laboratory examination, ultrasound, gastroduodenoscopy, contrast X-ray examination of the gastrointestinal tract, RPCG, MRI cholangiography, etc.) for PCHECS.

At the same time, in 182 patients after CHEC (mostly after LCHEC), CDL and SPV were detected – diagnosed and most of them re-operated and underwent EPST (128 cases) with sanitation (removal of stones) of the bile ducts. In 34 patients who failed to adequately perform EPST (with repeated attempts to remove, more often than not, large multiple, fissured - strangulated stones from the bile ducts), opening surgery was performed - such as open papillosphincterotomy (OPST- in 3 cases) or open papillosphincteroplasty (OPSP- in 8 cases), open choledochoduodenoanastomosis (OCDA -2 cases) and OPST + OCDA (21 – cases) especially in more advanced - severity cases (Table 1 and 2) of pathology (with 3 degrees), when the diameter of the hepaticocholedochus (HCD) is sharply delayted - expanded (more than 20 -25 mm) with the presence of multiple large, impacted stones in it, which often take place in our regions. The remaining patients continue conservative treatment for (PCHECS) chronic pancreatitis, cholangitis, hepatitis, gastroduodenitis, etc.

During these periods, in addition to CHEC (OCHEC or LCHEC) for UC CCLT, we also operated on 230 patients with the following complicated forms of CCLT (C CCLT), such as CDL and VPS, especially 3 degrees of pathology. Methods of their treatment (numbers and types of operations) and their results in relation to recurrence (relapse) or or residual(remaining). RCDL and RVPS are shown in the Table 2.

The main signs of the VPS in cholangiography (RPCG, MRCG, intraoperative cholangiogram etc.), cholangioscopy, choledochoscopy, balloon cholangio-papillography and probing.

№	**Investigations**	Degrees of the VPS		
	Intraoperative cholangiogram, choledochoscopy, balloon cholangiopapillography	**I**	**II**	**III**
A	Narrowing of the VP(in mm)	**> 2-1**	**>1**	**< 1**
B	Flow of the radiocontrast agent through the VP	Mildly decreased	Moderate to severely decreased	Severely decreased or no flow
C	Dilatation of the gepaticocholedochus (in mm)	< 15	15-19	>20
D	Probing	4 mm probe is not passing but 3 mm probe is passing with some effort.	3 mm probe is not passing	-
E	Fiberocholeangioscope using an endoscope with a diameter of 2.6 - 4.5 mm	Luminal narrowing of the VP due to inflammatory-fibrotic deformity, lack of "motor play" sphincter of the VP. Choledochoscope does not pass through the VP.		

Here it should be pointed out, that in the indicated pathologies (see table.1) since 1995, we almost always begin all operations on the biliary tract for cholelithiasis with diagnostic laparoscopy and removal of the gallbladder laparoscopically, the remaining operations are the same (CDLT, PST, PSP, CDA , DVD) are performed using new papillotomes (PST) we have developed and devices designed specifically for PSP, which allow these operations to be performed through microlaparatomy.

Table. 2

Our treatment methods for CCLT complicated CDL and VPS and their results in relation to RCDL and RVPS

Numbers and types of operations	RCDL and RVPS
OCHEC + CDLT – 96	46 (47,9%)
LCHEC + LCDLT – 28	15 (53,5%)
OCHEC + CDLT+CDA – 42	23 (54,7%)
LCHEC + CDLT+PST – 19	3(15,7%)
LCHEC + OCDLT+PSP -8	0
LCHEC + OCDLT+PST + CDA -31	0
LCHEC + OCDLT+PSP + CDA – 6	0

Result and discussions

As is known, regardless of whether they are perfomed LCHEC or OCHEC is indicated only for UC CCLT, i.e. without obvious - noticeable, (clear) signs of CDL and SPV (i.e., in the absence of signs of obstructive jaundice, visible (noticeable) dilatation of the diameter of (HCD- CBD) stones in it, etc.).

Thanks to these operations (LCHEC and OCHEC) is supposedly (evidently) completely eliminated CCLT. If so, then what is such a common reason for the development of CDL and SPV after LCHEC or OCHEC, not to mention other unknown causes of PCHECS...!?

It is necessary to emphasize here that, after OPST or OPSP and in combination with them CDA, that is, in combination with OPST or OPSP + CDA despite their use in more advanced - complicated forms of CLT, as well as after unsuccessful perfoming or inadequate EPST or OCDT, OCDA, reports on the frequency of recurrent or residual CDL (RCDL) and SPV (RSPV) in periodicals much less often and, in our practice, were not observed at all. Moreover, their long-term results turned out to be much better than even after LCHEC performed for UC CCLT. The results were even worse after CDLT with bougienage of and CDA (Tablle2.).

Doesn't all this indicate that with LCHEC (including OCHEC) for UC, CCLT sometimes leaves undiagnosed CDLT and SPV, and after EPST, CDLT and CDA inadequately corrected pathology.

It should be emphasized that today the diagnosis of CCLT and CDL, and (also) their treatment by LCHEC, LCDLT and EPST are generally accepted, without any serious disagreement. Therefore, more often than not, the true residual nature of CDL after LCHEC, it seems to us that CDL should not be so great (at least, it is unlikely), and as for SPV, supposedly its main cause is considered to be CCLT CDL, it also seems to be radically eliminated by LCHEC. If so, then where do RCDL and RSPV come from...!?.

If during CLT (CCLT and CDL) diagnostic errors do not occur in 2-3%, and in the diagnosis of SPV there are almost no such clear established data, i.e., the frequency of SPV during CLT ranges from 1-5% to 30 – 45) or more.

As is known, most authors believe that SPV as a complication of CCLT and CDL. But they are eliminated by LCHEC (for CCLT), and CDL by CDLT and EPST for CDL and SPV...! And after PSP and DVD of BT there is practically no residual RCDL and RSPV.

Therefore, it seems to us that some of the causes of PCHECS include incompletely eliminated bile stasis, mainly localized in the FS zone, leading to repeated bile stasis, not only served as the cause of relapse of the pathology, and even at the beginning of CLT. Although many believe that the main causes of CLT are, first of all, dyscholia (in connection with various pathological conditions of the body - organism), inflammation, and then stagnation of bile. There is no doubt about it.

But, with dyscholia and inflammation, the sudden appearance of significantly large stones (more than 1.5 - 2 - 3 mm), often delayed and growing in size and increasing in number in the gallbladder and especially in the bile ducts, is difficult to imagine, given the data below.

Since, naturally, gallstones initially appear in the form of "microlites" - in the form of "biliary sludge" or stones of small size (up to 1 – 1.5 – 2 mm) and they should migrate freely along the bile flow from the gallbladder to common bile duct, further and especially through the VP into the duodenum, if there are no obstacles in the VP area leading to bile stasis (in the bile ducts).

Since, with an intact biliary system, the diameter of the narrowest parts of the bile ducts, which are the cystic duct and VP, is always larger than these microliths - small stones, which on average are 2 - 4

mm and 3 - 6 mm, respectively. For example, with intact bile ducts (on a corpse), 3-4 mm probes are often difficult to pass through the cystic duct into the common bile duct, but they pass through the VP almost without any difficulty. And when identifying stones in the bile ducts, it's the other way around.

It should be noted here that if there are stones in the gallbladder smaller than the diameter of the cystic duct, such stones are almost always found in the hepaticocholedochus (especially, during transillumination), very often especially in the ampulla of the VP during choledochoscopy.

Stones migrated from the gallbladder through a narrow (2-4 mm in diameter) and relatively long (10 – 30 – 60 -... mm) duct (often tortuous) should pass freely - migrate through a relatively wide (3- 6 mm in diameter) - and a short (from 4 – 25 mm) channel of the VP, moreover, the bile outflow from the VP into the duodenum is much faster than through the cystic duct. Moreover, after LCHEC, i.e. after elimination (as it is considered), the main thing is the main formation of stones, including their removal from the bile ducts, by LCDLT and EPST, we can say that CLT is almost completely eliminated. Then what is the cause of recurrent or residual CDL and SPV...!?

Based on this, it can be assumed that at the beginning of the pathology (as a trigger for the disease (cholelithiasis), it seems to us that it often lies in the VP, leading to bile stasis in the bile ducts, primarily in the gallbladder, taking into account its large volume - as a keeper - of the reservoir bile.

During inadequate activation of digestion, i.e. disorderly eating (in a flash, at the wrong time, without desire - without appetite, stressful situations, physical inactivity, etc.) and as a result of insufficient work of the sphincter apparatus of the VP (dysfunction, spasms, papillitis, etc.) it seems to us that bile is mostly emptied from the extravesical bile ducts, while not having time to completely empty the gallbladder. This leads to thickening of the bile and the formation of microliths - and then stones with their retention, of course, at the beginning of the gallbladder. The constant migration of stones through the cystic duct, especially through an altered VP, aggravates the change in VP (this is a universally recognized mechanism for the development of this pathology...!) with their subsequent accumulation in the common bile duct...!

This means that timely removal of the gallbladder seems to break this vicious circle in most cases, significantly preventing and stopping the further development of the pathology - continued stone formation and its complications, but it turns out that this is not always the case - and not always effective (see top...!) .

As is known, diagnoses of CDL and especially SPV are often based on the degree of expansion of the diameter of the hepaticocholedochus and the presence of jaundice (at admission of patients to the clinic or in history, more often during an attack of biliary colic). As for jaundice, it can be absent in CDL and SPV up to 50%. It seems to us that the degree of expansion of the hepaticocholedochus also requires some clarification.

As is known, with intact bile ducts, the diameter of the hepaticocholedochus does not exceed 4–8 mm, and during LCHEC (or OCHEC), for UN CCLT the diameter of the hepaticocholedochus in almost more than half of the cases is 8–10 mm, and often up to 11–12 mm. Surgery usually completes the LCHEC operation in such cases, If a stone is not clearly identified in the hepaticocholedochus and SPV.

If for a given patient the initial diameter of the hepaticocholedochus was 4-6 mm, then during LCHEC the diameter of the hepaticocholedochus was detected to be 8 - 12 mm, which occurs in more than half of the cases, then it turns out to be dilated almost 2 - 3 times. As for choledocholithiasis (which is also considered one of the main signs of SPV), it is often detected even with a non-dilated common bile duct in up to 10 - 15% of cases.

This means that not the absence of jaundice, the widened (expansion) of the hepaticocholedochus (8 – 10 – 12 мм considered normal in many publications) and stones in the common bile duct does not exclude the diagnosis of SPV. What is evidenced by the presence of a fairly high percentage of recurrent or residual CDL and SPV...!?, even after LCHEC performed for uncomplicated CCLT.

And after PST or PSP, or especially after DVD, there is practically no relapse of cholelithiasis - which means relapse of bile stasis, thereby preventing stone formation again - especially their retention in the bile ducts.

Conclusion

This means that during primary operations on the biliary tract (especially during LCHEC, CDLT and CDA) or are not diagnosed (given the residual - recurrent nature of the pathology) or are not adequately corrected during the procedure. This means it is necessary to develop more advanced

diagnostic methods and treatment of CLT complicated by CDL and especially SPV. Which undoubtedly can serve as some reason for the PCHECS.

LIST OF REFERENCES:

1. Andrea T. Fisher, Kovi E. Bessoff, Rida I. Khan, Gavin C. Touponse, Maggie M.K. Yu, Advait A. Patil, Jeff Choi, Christopher D. Stave, Joseph D. Forrester Evidence-based surgery for laparoscopic cholecystectomy Surg Open Sci. 2022 Oct; 10:116-134.
2. Bystrovskaya E.I. Post Postcholecystectomy syndrome: clinical options, prognosis and prevention. // Abstract, dissertation, doctor of medical sciences, Moscow. 2010;40.
3. Danilov M.V., Aripova N.N., Zarubiani V.G. On the history of cooperation between academicians A.A. Vishnevsky and U.A. Aripova in the field of surgery of the biliary pancreatic system. // Bulletin of emergency medicine, 2018;11(4):90-95.
4. Fedrov V.D. Pancreatic surgery. M: Medicine. 1995;512.
5. Grigoriev P.Ya. Agafonova N.A., Soluyanova I.P. et al. Postcholecystectomy syndrome: diagnosis and treatment // Health of Ukraine. 2015;35(1):53.
6. Gubergrits N.B. "Chronic abdominal pain, Biliary pain" // M., 2007;420.
7. Junhong Chen, Hao Zhou, Hengwei Jin, Kai Liu. The causal effects of thyroid function and lipids on cholelithiasis: A Mendelian randomization analysis Front Endocrinol (Lausanne) 2023;14:1166740. Published online 2023 Mar 29. doi: 10.3389/fendo.2023.1166740
8. Katarzyna Zdanowicz, Jaroslaw Daniluk, Dariusz Marek Lebensztejn, Urszula Daniluk. The Etiology of Cholelithiasis in Children and Adolescents—A Literature Review. // Int J Mol Sci. 2022 Nov; 23(21):13376. Published online 2022 Nov.
9. Litkovsky I.A. and Gordienko A.V. Gallstone disease, cholecystitis and some diseases associated with them. // St. Petersburg, Publishing House Special Lit. 2019;358.
10. Ivashkin V.T., Okhlobystin A.V., Bordin D.S., Selezneva E.Ya., Kucheryavyi Yu.A., Bystrovskaya E.V., Vasnev O.S., Osipenko M.F., Musaev G.Kh., Shulpekova Yu.O. Resolution of the Expert Council "Modern view on the problem of postcholecystectomy syndrome." // Russian Journal of Gastroenterology, Hepatology, Coloproctology. 2017;27(6):96-108.
11. Shabanzadeh DM. The Symptomatic Outcomes of Cholecystectomy for Gallstones. // J Clin Med. 2023 Feb 28;12(5):1897-13.
12. Sivesh K. Kamarajah, Santhosh Karri, James R. Bundred, Richard P. T. Evans, Aaron Lin, Tania Kew, Chinenye Ekeozor, Susan L. Powell, Pritam Singh, Ewen A. Griffiths Perioperative outcomes after laparoscopic cholecystectomy in elderly patients: a systematic review and meta-analysis // Surg Endosc. 2020;34(11):4727-4740.
13. Sung Keun Park, Ju Young Jung, Chang-Mo Oh, Min-Ho Kim, Eunhee Ha, Dong-Young Lee, Jung-Wook Kim, Hee Yong Kang, Jae-Hong Ryoo. The Level of Urine Dipstick Proteinuria and Its Relation to the Risk of Incident Cholelithiasis J Epidemiol. 2021;31(1):59-64.
14. Weiwei Chen, Qiang Wu, Ning Fu, Zhiming Yang, Jingcheng HaoPatient selection for ambulatory laparoscopic cholecystectomy: A systematic review J Minim Access Surg. 2022 Apr-Jun; 18(2):176-180. Published online 2022 Feb 11. doi: 10.4103/jmas.jmas_255_21.
15. Yeji Kim, Chang- Mo Oh, Eunhee Ha, Sung Keun Park, Ju Young Jung, Jae- Hong Ryoo Association between metabolic syndrome and incidence of cholelithiasis in the Korean population // J Gastroenterol Hepatol. 2021 Dec;36(12):3524-3531.

Entered 20.11.2023