

The role of fibrocholangioscopy in cholelithiasis

Otabek Zaribbayevuch Yangibayev ^{1,*}, UR Zaribbayev, Z Yangibayev ¹, Muhammad Arsalan Ali Sajid ² and Pirmatov Sherzod Sharipovich ²

¹ Urgench Branch of Tashkent Medical Academy and Chair Person at Department of Endosurgical and Thoracic Surgery Unit, Regional Medical Center of Khorezm Region, Uzbekistan.

² Assistant at Urgench Branch of Tashkent Medical Academy and Department of Endosurgical and Thoracic Surgery Unit, Regional Medical Center of Khorezm Region, Uzbekistan.

³ Assistant at Urgench Branch of Tashkent Medical Academy of Khorezm Region, Uzbekistan.

⁴ Assistant at Urgench Branch of Tashkent Medical Academy and Department of Endosurgical and Thoracic Surgery Unit, Regional Medical Center of Khorezm Region, Uzbekistan.

World Journal of Advanced Research and Reviews, 2023, 19(03), 045–048

Publication history: Received on 03 July 2023; revised on 27 August 2023; accepted on 29 August 2023

Article DOI: <https://doi.org/10.30574/wjarr.2023.19.3.1634>

Abstract

Cholelithiasis is a very common disease throughout the world, but there are still some shortcomings in its treatment. Even after the treatment of "uncomplicated calculous cholecystitis" by the internationally recognized laparoscopic cholecystectomy (LCHC), complications such as "postcholecystectomy syndrome" after surgery are up to 20 - 40%, and the number of reoperations sometimes reaches 15 - 20%, especially in former Soviet republics (authors and others).

The article shows the role of fibrocholangioscopy aimed at reducing these complications. At the same time, after choledocholithotomy, it almost completely excludes residual stones and clarifies the diagnosis of BS VP.

In addition, with choledocholithiasis, cholangitis is almost always found, more often catarrhal (up to 46%), purulent (in 24% of patients) and often ulcerative-necrotic forms of cholangitis (22%), sometimes reticular cholesterosis (8%), as well as tumors hepatic ducts and polyps of BS duodenum.

Therefore, as a result of fibrocholangioscopy, the accuracy of diagnosing choledocholithiasis, BS VP, cholangitis, etc., reaches 95-99%. which helps to reduce the number of complications, such as recurrent and especially residual choledocholithiasis, BS VP and cholangitis, etc.

Keywords: Prevalence; Cholelithiasis; Gastrectomy; Postoperative period; Laproscopically

1. Introduction

Cholelithiasis (CHLTS) is a very common disease throughout the world, but there are still some shortcomings in its treatment. Even after the treatment of "uncomplicated calculous cholecystitis" by the internationally recognized laparoscopic cholecystectomy (LCHC), complications such as "postcholecystectomy syndrome" after surgery are up to 20 - 40%, and the number of reoperations sometimes reaches 15 - 20%, especially in former Soviet republics (1 - 5 and others), not to mention the results of other operations on the main-common bile ducts. So, we still have problems in this area. Therefore, in solving these problems, an important role is played by fibrocholangioscopy (6-9).

The purpose of scientific work is to improve the results of treatment of patients with cholelithiasis.

* Corresponding author: Otabek Zaribbaevuch Yangibaev

1.1 The tasks of scientific work

It consisted in identifying shortcomings in the treatment of patients with CHLTS and determining the place of choledochoscopy in their elimination.

2 Materials and research methods.

Over the past almost 50 years, we have been on time for the most common operations on the common bile ducts and Vater's papilla (VP), such as choledocholithotomy (CHLT), papillosphincterotomy (PST), papillosphincteroplasty (PSP), choledochoduodenostomy (CHDA), etc., along with other interoperative diagnostic methods (Ultrasound, cholangiography, probing, etc.) used choledochoscopy - cholangioscopy.

For this purpose, metal (in 12 cases) with a diameter of 4 mm and fibrocholedochoscopes with a diameter of 4-5 mm (in almost all cases) were used, and since 2022, fibrocholedochoscopes with a diameter of 2.6 mm and have been studied in 432 patients.

All patients were examined before and after surgery (including during surgery) using modern examination methods (clinical and laboratory, ultrasound, CT, ERCP, MRI cholangiography, etc.).

3 Discussion

Today everywhere CHLTS is easily - clearly and quickly diagnosed and basically - successfully treated by LCHEC for cholecystolithiasis (up to 90-98%), by laparoscopic choledocholithotomy (LCHDLT) and endoscopic papillosphincterotomy (EPST) for choledocholithiasis (CHDLZ) and benign stenosis (BS) of the Vater papilla (VP). In recent years, a number of surgeons have also used laparoscopic choledochoduodenostomy (LCHDA) in the treatment of CHDLZ and BS VP.

If, for any reason, it is impossible to fulfill them, then, in such cases, surgeons are forced to resort to open methods of operations (PST, PSP, CHDA, etc.) - up to 10 - 15% of cases, and sometimes more cases, especially in emergency surgery. However, their results (both open and endoscopic - laparoscopic options) still do not satisfy some surgeons, especially expert - experienced surgeons in this field.

Due to the still rather high percentage of postoperative complications, especially and mainly in the long-term period after surgery, such as recurrent or residual CHDLZ and BS VP - up to 10 - 25%. - and also the "postcholecystectomy syndrome" (after LCHEC) up to 40 - 55%. Without mentioning yet, a number of immediate postoperative complications - such as subhepatic abscesses, postoperative pancreatitis, biliary fistulas - biliary peritonitis, etc.).

Therefore, it can naturally be assumed that these diseases are either not detected (especially BS VP) during primary operations (meaning the residual nature), or when they are detected, adequate therapeutic measures are not applied in their treatment.

It seems to us that the most reliable method for diagnosing CHDLZ and BS VP and preventing their recurrence, along with other methods, is choledochoscopy - fibrocholangioscopy.

Therefore, in almost all operations on the main bile ducts (CHDLT, PST, PSP, CHDA, etc.), and since 1995, even with LCHEC (if the cystic duct is dilated, then through it), we have used interoperative choledochoscopy, mainly after removal of all previously known - established stones, i.e. after CHDLT. In such cases, as a rule, with multiple CHDLZ, residual stones are still detected, more often microliths, mainly in the ampoules of the VP and often in the intrahepatic ducts. In the case of transduodenal PST and PSP, control choledochoscopy was performed retrograde through the extended BS of the VP.

With choledocholithiasis, cholangitis is almost always found, more often catarrhal (up to 46%), purulent (in 24% of patients) and often its ulcerative necrotic form (22%), sometimes reticular cholesterosis (8%), and also, even in two cases revealed a tumor of the right hepatic duct and in 5 patients polyps of VP on the background of cholelithiasis. In addition to them, in choledocholithiasis, BS VP 76% is more often diagnosed (non-passage of the choledochoscope through the VP and the absence of movement of its sphincter mechanism - i.e. rhythmic "opening and closing" of the channel, etc.)

4 Results

In recent years, the development and use of with a diametr choledochoscope with a diamet of 2,6 mm, it semms to us, creates conditions for ashap decrease in such complications as postcholecystectomy syndrome recurrent and residual CHDLS, BS VP and cholangitis, namely after LCHEC performed for uncomplicfted cholecystolithiasis-microcholecystolithiasis, that is, when stones smaller than diametr of the cystic duct are found in the gallbladder, stones jf the same size are almost always found during choledochoscopy (a choledochoscope with a diamet of 2,6 mm) and especially in the VP ampoule.

Therefore, if such small gallstones are suspected or detected in the gallbladder, during LCHEC, we first apply a 1-clip in the most proximal cystic duct (to prevent the migration of a stone from the gallbladder into the bile ducts during LCHEC) and perform microcysticotomy under the clip. Then we introduce a choledochoscope with a diameter of 2.6 mm through it (almost always it succeeds) and examine it. main bile ducts. At the same time, more often (we repeat) we find such stones (stones smaller than the diameter of the cystic duct) mainly in the ampulla of the BS duodenum, which are rarely detected with various cholangiography.

Therefore, as a result of fibrocholangoscopy, the accuracy of diagnosing choledocholithiasis (especially microcholidocholithiasis), BS VP cholangitis (including tumors of the bile ducts) that occur simultaneously with cholelithiasis can increase the accuracy of diagnosis up to 95-99%. which helps to reduce the number of complications, such as relapse and residual choledocholithiasis, BS VP and cholangitis, etc.

5 Conclusion

Cholelithiasis is a very common disease throughout the world, but there are still some shortcomings in its treatment. Even after the treatment of "uncomplicated calculous cholecystitis" by the internationally recognized laparoscopic cholecystectomy (LCHEC), complications such as "postcholecystectomy syndrome" after surgery are up to 20 - 40%, and the number of reoperations sometimes reaches 15 - 20%, especially in former Soviet republics (authors and others).

The article shows the role of fibrocholangioscopy aimed at reducing these complications. At the same time, after choledocholithotomy, it almost completely excludes residual stones and clarifies the diagnosis of BS VP

In addition, with choledocholithiasis, cholangitis is almost always found, more often catarrhal (up to 46%), purulent (in 24% of patients) and often ulcerative-necrotic forms of cholangitis (22%), sometimes reticular cholesterosis (8%), as well as tumors hepatic ducts and polyps of BS duodenum.

Therefore, as a result of fibrocholangoscopy, the accuracy of diagnosing choledocholithiasis, BS VP, cholangitis, etc., reaches 95-99%. which helps to reduce the number of complications, such as recurrent and especially residual choledocholithiasis, BS VP and cholangitis, etc.

Compliance with ethical standards

Disclosure of conflict of interest

No conflict of interest to be disclosed.

References

- [1] Aliev Yu. G., Chinikov M. A., Panteleeva I. S. et al. Results of surgical treatment of gallstone disease from laparotomic and minimally invasive accesses // Surgery: Journal im. N. I. Pirogov. 2014. No. 7. S. 21–25.
- [2] Gubergrits N.B. "Chronic abdominal pain/, Biliary pain" M., 2007. 420. P.
- [3] A. V. Gusev, I. N. Borovkov, S. A. Arutyunyan, A. B. Shcherbakov, A. B. Elnikov, P. S. Orlov, V. S. Bogdanov, A. S. Barvinskii, and Pokrovsky HEDGEHOG. Papillosphincterotomy after cholecystectomy.//Modern problems of science and education 2012, No. 5 p. 1 - 10.
- [4] Nazirov F.G., Akbarov M.M., Saidazimov E.M. Nishanov M.Sh. Mistakes and dangers in biliary tract surgery. Moscow - GEOTAR-Media 2020. 272.

- [5] Kazakov N.M., Timerpulatov M.V. Senderoich E.I. et al., The importance of fibrocholedochoscopy in the treatment of choledocholithiasis complicated by obstructive jaundice syndrome. Medical Bulletin of Bashkordoston 2018, Volume 13 No. 6 (78).
- [6] Lee T., Teng TZI., Shelat V.G. / Choledochoscopy// World j. Gastrointest Endoscop// 2021/Dec 16.13. No. 12. 571-592p,
- [7] The utility of single operator cholangioscope to diagnose and treat radiographically negative biliary stones. A case and review/ Averbukh L.D., Miller D., Birk J.W., Tadros M.// J.Dig., Dis. 2019, No. 20, 262 - 266 p.
- [8] Efficacy and safety of digital single operator cholangioscope for difficult biliary stones/ Brewer Gutierrez., Bekkali N.L.H., Raijman I., Sturgess R., et al.// Clin Gastroenterol. Hepatol 2018, No. 16, 918-926 p.
- [9] Shirah B.H., Shirah H.A., Zafar S.H. et al/ Clinical patterns of postcholecystectomy syndrome// Ann Hepatobiliary Pancreat surg. 2018 #22 52-57p