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Choledochal cyst Todani IA case report

Ana Karen Medina Lira [a], Argenis Jose Mayorga Soto [a], Pamela Frigerio [b,*]

[a] Surgery Department, Hospital Universitario de Saltillo. Saltillo, Coahuila, Mexico
[b] Facultad de Medicina Unidad Saltillo, Universidad Autónoma de Coahuila, Saltillo, Coahuila, Mexico

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ABSTRACT

BACKGROUND: Choledochal cyst is a congenital dilatation of the biliary tree. It may affect only the extrahepatic bile duct (type I, II and III), intrahepatic (type V) or both (type IVa). Vater first described choledochal cyst in 1723. Open excision was the standard procedure made a great impact in the treatment but since 1995 Farello et al. first reported laparoscopic choledochal cyst excision and this has been used worldwide.
CASE REPORT: Female, 17 years old, past medical history two years ago a laparoscopic cholecystectomy for gallbladders. Chief complain epigastric pain one that begins one week ago intensity 10/10, accompanying nausea and jaundiced skin. An ERCP is performed and shows choledochal cyst and a dilator is placed with improved jaundiced tint, cholangiopancretography requested, which reports that the cyst does not invade continuous areas. Then it was performed resection of the cyst by laparoscopy.
DISCUSSION: Choledochal cyst is a well described albeit rare clinical entity. Diagnosis and management are important because patients may develop cholangiocarcinoma. The elective treatment for type IA choledochal cyst is resection of the cyst with Roux-en-Y hepaticojejunostomy or hepaticoduodenostomy.
CONCLUSION: Laparoscopic surgery is a safe way with a shorter length of stay, less postoperative morbidity and a lower blood loss when compared with open approach. This technique is also favorable from a cosmetic viewpoint. With the improvement of laparoscopic techniques and deftness of surgeons practice, laparoscopic surgery may become the first choice procedure for choledochal cyst.

1. Introduction

Choledochal cyst is a rare entity, a congenital dilatation at any portion of the biliary tree that appears more often in the main part of the common bile duct. Stadistics shows one case per 100,000 to 150,000 live births. 75% are diagnosed in childhood and 20% of case in the adult. It is more common in women than men (3–4:1). [1].

Choledochal cysts were described for the first time by Vater in 1723. There are several theories that attempt to explain the etiology of choledochal cyst. It is believed that its origin may be related to abnormal colédoco-pancreatic-ductal union allowing chronic reflux of pancreatic enzymes into the bile duct, which re-consultation in weakening and dilation of the road, and the subsequent formation a quiste [2,3].

The widely accepted classification system for choledochal cysts, devised by Todani and collaborators, is based on the cholangiographic morphology, location and number of intrahepatic and extrahepatic biliary tree cysts (Fig. 1). Type I is the most common (80–90%) and is limited to cysts that extrahepatic bile duct. Subdivided into IA (dilation sacciforme, it affects all or most of the hepatocolédoco), IB (dilation sacciforme, affects only a segment of hepatocolédoco) and IC (dilated diffuse tion around the extrahepatic bile duct) [1,4].

Ultrasound is the initial examination abdominal and more easily. Allows imaging of the road intra- and extrahepatic bile with diameter measurement bile duct or common hepatic duct and cyst Choledochal. Shows a cystic mass in the quadrangular you upper right separately from the gallbladder. For a choledochal cyst on ultrasound is suspected, but there is no diagnostic certainty a colangiogamma- 99mTc-HIDA program with data can provide more specific. It consists of drug uptake in the cyst site followed by a filling and a delay in emptying it. This study has sensitivities from 100% for type I cysts. But nevertheless, it may be useful to distinguish between a cyst Choledochal and atresia of the biliary tree. Computed tomography (CT) is useful for show the continuity of the cyst with the biliary tree, his relationship to adjacent structures, the presence and stage associated malignancies [1,5].

As for the therapeutic measure generally it has been used cholecystectomy and resection of the cyst with biliary-enteric reconstruction technique. The most Zada used is the liver-jejunal Roux-Y. However, in our midst, it is practiced as a reliable alter- native the hepatic-duodenal anastomosis, which has good resultados [6].

* Corresponding author at: Street Real number 421 Private Jardines del Valle Zip Code 25260 Saltillo, Coahuila, Mexico. Tel.: +0448448690472.
E-mail address: pamela.frigerio@hotmail.com (P. Frigerio).

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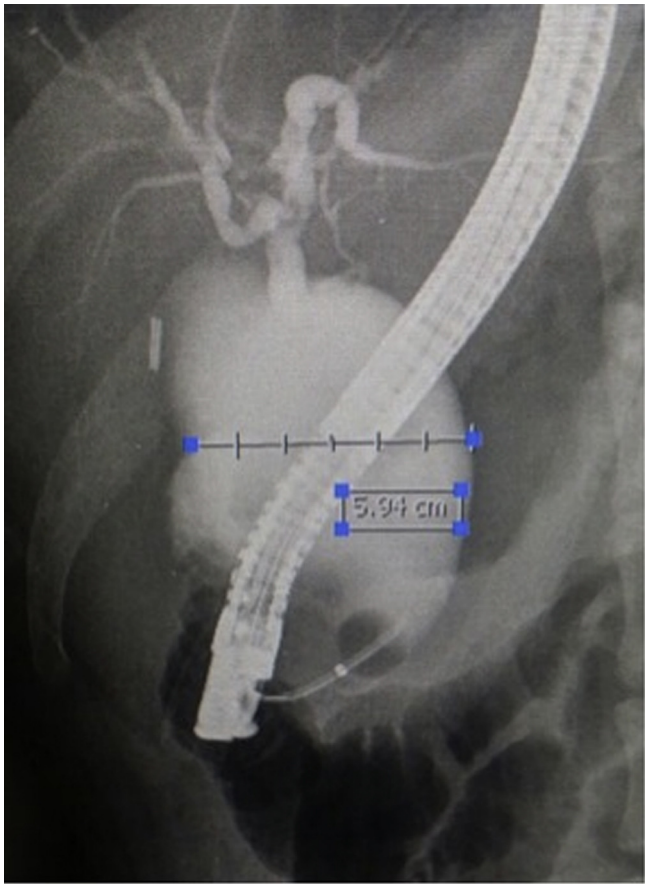

Fig. 1. Endoscopic retrograde cholangiopancreatography that shows the choledochal cyst of 5.94 cm.

The prognosis of choledochal cysts type I is good when they have been operated. Monitoring is important. The monthly review the first three months postoperatively, and every three months for two years are necessary to detect the presence of cholangitis.

1.1. Case report

Mexican female patient 17 years of age, 99.2 pounds, walked into Emergency room with chief concern repeated episodes of abdominal pain and orally wing intolerance, poor weight gain during adolescence and past medical history two years ago a laparoscopic cholecystectomy for gallbladders, treated in another facility. No Drug history, no family history including any relevant genetic information, and no psychosocial history including smoking status and where relevant accommodation type. In physical examination active pain on palpation of the right upper quadrant and palpable mass. Liver below the costal margin. Negative rebound. She presents hypertransaminemia, elevation of pancreatic enzymes and overt signs of cholestasis with increased TGP and total bilirubin direct expense. Leukocytosis 25,000. Diagnostic challenges that ultrasound was inconclusive. Diagnostic reasoning Cholestasis including other diagnoses considered choledocholithiasis. Endoscopic retrograde cholangiopancreatography is done, finding as finding the presence of a cystic malformation of extrahepatic bile duct corresponding to a choledochal cyst type I according to the classification of Todani as well as multiple choledocholithiasis, which was resolved by the process, obtaining 3 stones 3, 5 and 9 mm and the material after the removal of purulent stones; Taking as these findings, the study continues with colangioresonancia to corroborate diagnosis, which concludes choledochal cyst type IA (Fig. 1).

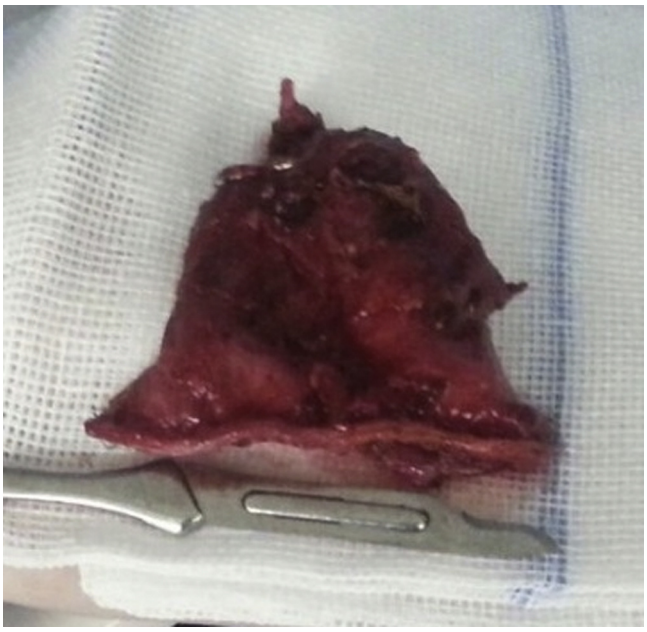

Fig. 2. Pathological piece of choledochal cyst Todani IA.

Pre-intervention considerations antibiotic medication. The surgeon had high experience with laparoscopic surgery he is a General Surgeon. Under general anesthesia, after sepsis and antisepsis, transumbilical incision is made, Veress needle for 5 mm port right upper quadrant is introduced cavity is inflated up to 13 mmHg, then incision is made in lower abdomen for 12-mm port and another 5 mm in left. As for middle-left line. Then proceed to dissection firm adhesions in bile duct and liver, with LigaSure and hemostasis proceeds to dissect bile duct, being cyst of approximately 5×5 cm, so fusiform extending to carina at the top and intrapancreatic part on their part lower, it dries fully behind the portal vein is achieved dissect bile duct and traction with umbilical cintilla then proceeds to dissect to carina where left hepatic duct is identified, clip is placed on the upper edge of the cyst and cut. piece choledochal cyst Todani IA is removed by umbilical port. (Fig. 2) Subsequently grape and dry bottom, jejunum-jejunal anastomosis, handle intestine is located 60 min from the angle of Treitz, cutting and grapeo of it is done, latero-lateral anastomosis, handle rises intestinal and hepato-jejunal anastomoses with 3-0 Vicryl posterior and anterior plane, hemostasis and sealing anastomosis are checked, washed and sucked cavity. Jackson type drain leaves it being finished surgery. Findings: 200 cc bleeding, surgery time 7 h

Postoperatively there were no complications; the patient was discharged on the 8th day and go to reprising within a week without complications.

2. Discussion

Choledochal cyst is a well described albeit rare clinical entity. We can ensure that the USG is a very important auxiliary method for the diagnosis of choledochal cyst type I. However, one of its limitations is that it depends largely on the experience of the radiologist. Diagnosis and management of choledochal cyst are important because patients may develop cholangiocarcinoma. Radical resection and Roux-en-Y anastomosis is the standard method for the management of congenital choledochal cyst. In 1995, video-guided laparoscopic treatment was initially used in clinical practice for the management of choledochal cyst. Rare studies on adults are avail-

able. In this case, we present the experiences of management of choledochal cyst in adult using the laparoscopic technique [7,8].

To our knowledge, five types of choledochal cysts are available. For patients with type I cysts, complete resection of cyst was performed together with reconstruction with a hepatic jejunostomy, our case. Unfortunately, the management efficiency for the other three types of choledochal cysts is still not well defined. In this study, we present one case of patients received resection and Roux-en-Y anastomosis under laparoscope. The surgery was minimally invasive, and no recurrence or postoperative complications were reported in the 3–48 months follow up.

3. Conclusion

Laparoscopic surgery to choledochal cyst treatment is a safe way with a shorter length of stay, less postoperative morbidity and a lower blood loss when compared with open approach. This technique is also favorable from a cosmetic viewpoint because the resultant wound can be reused as the trocar insertion site at the time of laparoscopic cyst excision. With the improvement of laparoscopic techniques and deftness of surgeons practice, laparoscopic surgery may become the first choice procedure for choledochal cyst [7,8].

Conflict of interest

There is no conflict of interest to be declared.

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Ethical approval

We have approval from the Ethical Committee and the Surgery Department from the Hospital Universitario de Saltillo. We protected people. Data Confidentiality. The authors declare that they have followed the protocols of the workplace on the publication of patient data. Right to privacy and informed consent. The authors have obtained the informed consent of patients and/or subjects referred to in Article consent. The corresponding author holds this document.

Consent

Written informed consent was obtained from the patient for publication of this case report and accompanying images. A copy of the written consent is available for review by the Editor-in-Chief of this journal on request.

Author contribution

Medina-Lira Ana Karen study concept or design, data collection, data analysis or interpretation.

Mayorga-Soto Argenis Mayorga Surgeon performed the operation and follow up.

Frigerio Pamela study concept or design, data collection, data analysis or interpretation, writing the paper.

Research studies

This is not a research is a case report.

Guarantor

Pamela Frigerio have full responsibility for the work.

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