Common Bile Duct Cyst: About an Observation and Review of the Literature

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ABSTRACT

The authors report a case of a common bile duct cyst in a 19-year-old patient referred for the management of chronic pain in the right hypochondrium, without other associated symptoms. The abdominal computed tomography scan revealed a bile duct cyst confirmed by abdominal magnetic resonance imaging (MRI) (type 1c according to Todani). Laparotomy had revealed a common bile duct cyst. The procedures consisted of a resection of the main bile duct and cholecystectomy + hepatico-jejunal anastomosis (Roux-en-Y method). The anatomopathological examination had shown a fibrous-walled bile duct cyst with epithelial hyperplasia and dysplasia without signs of malignancy. The post-operative follow-up was simple and the return home had taken place on the 7th postoperative day. The patient had been seen for routine check-up 51 days after surgery. She was in apparent good health without particular complaints.

Key words: Cholecystectomy, common bile duct, cyst, roux-en-Y.

INTRODUCTION

Common bile duct cyst is a rare abnormality that corresponds to saccular or spindle-shaped dilation of the main bile duct.¹ Its incidence in western populations ranges from 1/100,000 to 1/150,000 while it is considerably higher in Asians (approximately 1/13,000).² This pathology is not as rare in Africa as it’s claimed.³

At present, the most widely used classification is that of Todani [Figure 1].⁴ The diagnosis is made easy by modern imaging means, biliary-MRI.⁵ To avoid complications from incomplete cystic excision and minimize the need for reoperation, the current surgical strategy consists of a complete resection of the entire cyst (including the gallbladder), followed by restoration of enterobiliary continuity.²

CASE REPORT

Mrs F.N.S., is a 19-year-old patient with no particular pathological history, received on December 24, 2018 for the management of pain in the right hypochondrium which has been evolving since 1 month. She had an abdominal ultrasound and an abdominal computed tomography (CT) scan. On examination, the patient was in good general condition, with anicteric mucous membranes, and the constants were normal. The abdomen was supple, not tender, but with slight hepatomegaly with regular contours.

The abdominal ultrasound of November 13, 2018 concluded in moderate heterogeneous hepatomegaly, a cystic mass of 4.5 cm (pancreatic?) and peritoneal effusion. The abdominal CT scan carried out on November 16, 2018 showed minimal homogeneous hepatomegaly with dilation of the intrahepatic bile ducts and common bile duct and moderate peritoneal effusion and cholangitis-like inflammation without ruling out a bile duct cyst [Figure 2]. Hepatobiliary MRI performed on January 11, 2019, found a bile duct cyst classified type 1c of Todani [Figure 3].

After midline laparotomy, we performed a complete resection of the entire cyst (including the gallbladder), followed by restoration of enterobiliary continuity with

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hepatico-jejunal anastomosis (Roux-en-Y method) [Figure 4]. Post-operative care consisted of antibiotics, analgesia, and bandages. The anatomopathological examination had shown a fibrous-walled bile duct cyst with epithelial hyperplasia and dysplasia without signs of malignancy [Figure 5]. The post-operative follow-up was simple and the return home had taken place on the 7th post-operative day. The patient had been seen for routine check-up 51 days after surgery. She was in apparent good health without particular complaints. Six months follow-up found no evidence of ascending cholangitis or anastomosis stenosis.

The specific approach to treatment depends largely on the type of cyst, but usually aims to completely excise and restore enterobiliary drainage, either mainly in the duodenum or through Roux-en-Y hepaticojejunostomy. Surgery should be elective and patients medically optimized beforehand. Treatment of type I cyst (the most common) includes resection of the extrahepatic biliary duct and cholecystectomy with hepatico-enterostomy.[7]

Our patient, classified 1c by Todani, had benefited the same procedure described above. Left untreated, the most serious complication is bile duct cancer, which occurs in...
3% of cases and the 2-year survival rate is 5%. If the cyst is diagnosed before 10 years, the incidence of neoplasias is 0.7%, increasing to 7% between 10 and 20 years, and to 14% after 20 years. The other rare complication is spontaneous rupture of the cyst (1.8–7%); traumatic rupture is even rarer (with only few cases described).

CONCLUSION

Bile duct cyst is a rare disease, diagnosed predominantly in children, and a sex ratio in favor of the female sex. In view of its clinical polymorphism, biliary-MRI is the examination of choice for the diagnosis with certainty. Not taken care of, it very often progresses to cancerization, and rarely to ruptures (spontaneous or post-traumatic).

REFERENCES
