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THE ACCESSORY CYSTIC DUCT: THE IMPORTANCE OF ANATOMICAL VARIATIONS IN THE SURGICAL PRACTICE

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INTRODUCTION

The bile ducts carry bile from the liver to the duodenum. The pathway begins with the bile canaliculi, which receive bile secreted by hepatocytes, which finally drain into the right and left hepatic ducts in their respective portions of the liver. Upon leaving the liver, the right and left hepatic ducts form the common hepatic duct, which receives the cystic duct on the right side forming the common bile duct, which culminates in conducting bile to the duodenum. Although the anatomy of the biliary tract is well described in the literature and is considered "normal" due to its prevalence in 58% of individuals[1], approximately 10% of the population has anomalies of the biliary tract[2]. Anomalies in the cystic ducts, however, are not often visualized. Anatomical variations of the biliary tract are usually identified through imaging tests or during the intraoperative period. Despite their frequency, they are rarely identified before adulthood, and can cause jaundice and biliary colic with no apparent cause. The identification of anatomical variations of the biliary tract is important to avoid an incorrect diagnosis or surgical complications, and cholangiography is the ideal exam for this purpose. Thus, the objective of this study is to emphasize the importance of anatomical knowledge of the biliary tract, its anatomical variations and alterations associated with pathological processes in order to obtain an accurate diagnosis and, thus, optimize the clinical and surgical conduct.

CASE REPORT

N.C.D, female, 32 years old, was admitted to the health service complaining of abdominal pain, associated with nausea, vomiting, with no report of acholic stools or choluria. On examination, he presented a flaccid abdomen, tympanic, pain on deep palpation in the Right Hypochondrium, with a Positive Murphy's sign, without peritoneal irritation or visceromegaly; jaundice +/4.

Ultrasound showed minimal ectasia of the intrahepatic bile ducts (BV), distended gallbladder, with heterogeneous content, with suspension debris and thickened walls measuring 0.6 cm. The patient presented intense pain and resistance during the compressive maneuver, which, associated with intense intestinal meteorism, made the examination of extrahepatic BV difficult.

The blood test in the preoperative period did not demonstrate leukocytosis (global leukometry: 7700 mm 3), while liver enzymes were altered (alanine aminotransferase: 379 U/L, oxaloacetic transaminase: 107 U/L, total bilirubin: 4.63 mg/ dL, indirect bilirubin: 1.3 mg/dL, direct bilirubin: 3.46 mg/dL, alkaline phosphatase: 381 U/L, gamma GT 794 U/L). There was also an alteration in the INR (1.16). Due to the set of typical findings of a surgical abdomen, the diagnosis of acute cholecystitis was confirmed, and open cholecystectomy was indicated, due to the unavailability of Videolaparoscopy in the context.

During the procedure, a median supraumbilical incision was chosen, followed by diaeresis in layers. In the cavity inventory, there was no free fluid in the cavity, a normal-sized liver, a gallbladder with numerous small calculi inside it.

The hepatic pedicle, cystic conduit and common bile duct were enlarged. Then, dissection and isolation of the cystic duct, the cystic artery, and the gallbladder through the liver bed were performed, when surprisingly an accessory cystic duct was identified, which was sectioned and ligated with sutupak 0 thread.

After this surgical time, the cholecystectomy itself was performed with section, ligation of the cystic artery and finally, the study of the biliary tract was performed through transcystic intraoperative cholangiography

with a probe number 8. The images did not show evidence of calculus in the common bile duct and, at that time, washing of the common bile duct with 0.9% saline solution, ligation of the cystic duct with Sutupak thread) and other surgical procedures for completion, such as closure of the aponeurosis and dermorrhaphy. After the procedure, the patient was sent for recovery, being discharged a few days after the surgery.

DISCUSSION

Despite the importance of diversity in the anatomy of the biliary tract, few studies in the literature describe the formation of accessory cystic ducts. It is more common to find two ducts draining two vesicles than one vesicle draining two ducts[3]. The accessory cystic duct can be divided into 3 types, depending on the configuration of the duct. In type Y, the ducts unite, forming a common duct to anastomose with the common hepatic duct. In type H, the accessory duct ends in the right or left common hepatic duct. In the trabecular type, the accessory cystic duct terminates in the right hepatic duct within the liver.[4] .

In this sense, it is emphasized that the knowledge of anatomical variations is essential, in order to avoid possible surgical intercurrences, such as the inadequate section of a bile duct. The biliary tract can be studied using various imaging modalities. However, endoscopic retrograde cholangiopancreatography (ERCP) is the most accurate technique to portray the anatomy of the biliary tract and, consequently, detect possible pathologies or variations[1].

CONCLUSION

The assessment of the individual anatomy of the bile duct is extremely important in preoperative care, considering the frequency of possible anomalies and the damage that may result from them. Although ERCP is the most accurate method for this purpose, knowledge of the anatomy can be obtained through other means to minimize the risk of injury to the patient. In the context, despite this variation, the surgery was uneventful, with only the surprise finding of an accessory cystic duct. Thus, the complexity of the biliary tract and the relevance of the subject for the safe performance of surgical procedures are evident.

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