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Case Report

Congenital multiseptate gall bladder in a child: a rare case report

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ABSTRACT

Congenital multiseptate gallbladder (CMGB), is a rare congenital anomaly of gall bladder and it may be associated with other abnormalities. The gallbladder has one or many septa that divides the cavity into multiple distinct sections. It is considered as a pseudo-duplication of the gallbladder. Septate gall-bladder has not been a well-documented entity as most of the patients are asymptomatic, and this is usually an incidental finding which is discovered accidentally during the evaluation of abdominal pain. Some patients may present to the clinician with the complaints of pain in the right hypochondrium and epigastrium or colicky abdominal pain. Rarely, there may be stone formation due to septations, which may lead to recurrent abdominal pain. The most accurate way to diagnose septate gall-bladder is to combine ultrasonography and magnetic resonance cholangiography (MRCP). Here we present a four-year-old female child with a multiseptate gall bladder who underwent laparoscopic cholecystectomy, and her abdominal pain resolved entirely.

Keywords: Cholecystectomy, Biliary anomalies, Multiseptate gallbladder, MRCP

INTRODUCTION

Congenital multiseptate gall bladder (CMGB), also called as honeycomb gallbladder, is a rare congenital anomaly of gall bladder and may be associated with other biliary tree abnormalities.[1] The aetiology for the disease is not very clear, and multiple embryological hypotheses have been suggested. The first case of CMGB was reported in 1963.[2] It is due to incomplete vacuolization of the gall bladder bud.[3] The septations can be complete or incomplete depending upon the involvement of gall bladder lumen. Congenital gallbladder anomalies are categorized based on shape, size, position and number. Multiseptated gallbladder is a rare congenital anomaly, and no malignant disease related to multiseptated gallbladder has been reported, due to which it is considered to be a benign disease.[4] Most of the patients are asymptomatic, and this is usually an incidental finding. Some patients may present with pain in right hypochondrium and epigastrium or colicky abdominal pain with vomiting.[5] The clinical features occur due to inability of thick bile to pass through tiny pores between the septa, causing biliary stasis and stone formation.[6] This condition is more frequent in females. We here present a case of CMGB who fully recovered after Laparoscopic cholecystectomy.

CASE REPORT

A 6-year-old girl presented to us with history of recurrent colicky abdominal pain for last one year. There was no history of fever, vomiting or jaundice. Examination of the child was normal. There was no significant family history. All blood investigations including, CBC, KFT, serum electrolytes, LFT, ESR and peripheral blood film were done, which were normal. USG abdomen was done which show multiseptated gallbladder with a honeycomb appearance. (Figure 1) The USG abdomen was followed by magnetic resonance cholangiopancreatography (MRCP) to confirm diagnosis and to rule out other

abnormalities of biliary tract if present. The MRCP shows classical picture of multiseptated gallbladder. (Figure 2a and b) The patient was offered laparoscopic cholecystectomy, and gallbladder specimen was removed. (Figure 3a) The cut section of the gallbladder specimen showed multiple septae (Figure 3b). After cholecystectomy, the symptoms of the patient resolved completely. Post-operative period was uneventful and patient was discharged on 3rd postoperative day. Follow up was done on 8th postoperative day and port site sutures were removed. Further, 6 months follow up was done with no reported complications.

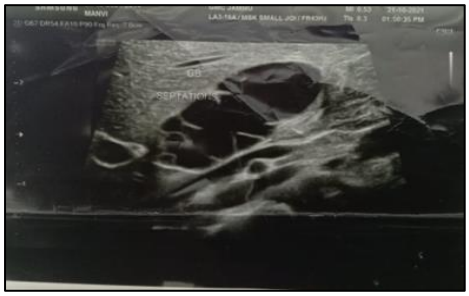

Figure 1: USG showing CMGB with a honeycomb appearance.

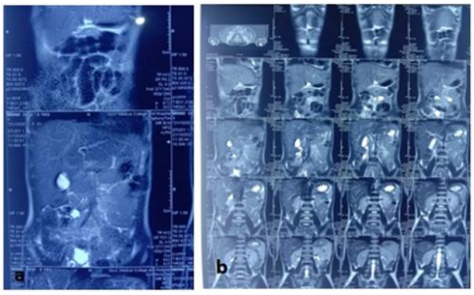

Figure 2 (a and b): The MRCP shows classical picture of multiseptated gall bladder.

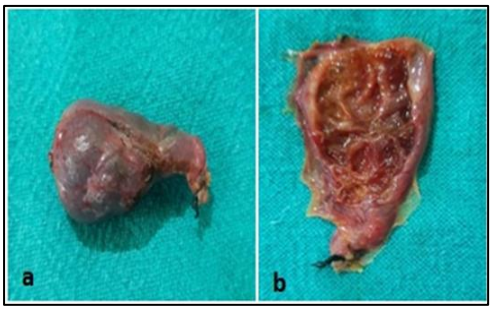

Figure 3: (a) Gallbladder specimen; (b) Cut section of septated gallbladder.

DISCUSSION

The characteristic feature of a septate gall bladder is the presence of septum within the gall bladder. The septum can be single or multiple. A single septum divides the gall bladder into two compartments. When it divides the gall bladder longitudinally, it is called a bilobed gall bladder, and when it divides it transversely, it is called as hour glass gall bladder. Sometimes, multiple septums divide the gall bladder into various compartments. These septae results from incomplete vacuolization of the solid stage of gall bladder or persistent wrinkling of the gall bladder wall during development8.[8] Our case was a gall bladder with multiple septae. These patients may present with pain right upper abdomen, epigastric pain, nausea and vomiting, jaundice and fever, or they may be asymptomatic and may be an incidental finding. Septae in the gallbladder causes impaired motility, leading to stasis of bile flow, which is the reason for recurrent abdominal pain. We have reviewed the literature, and we have found that so far, 58 cases, including our case have been reported (children =19, adult =38).[9] Once a septate gall bladder on ultrasonography is seen, one should go for MRCP to delineate the whole biliary tree as it is associated with other anomalies of biliary tree like choledochal cyst and abnormal pancreaticobiliary duct junction (APBDJ).[10] Sometimes, an intra-operative cholangiogram may be needed. The combination of both ultrasound and MRCP is the most beneficial and least invasive method to diagnose congenital multiseptated gallbladder. The best treatment for symptomatic septate gall bladder is laparoscopic cholecystectomy.

CONCLUSION

The congenital multiseptated gall bladder is a rare anomaly and should be thoroughly evaluated by USG and MRCP to rule out associated biliary anomalies, especially those with high malignant potential. MRCP is considered superior to other investigations like ERCP to rule out associated biliary anomalies due to its non-invasiveness and high resolution of biliary anatomy. Patients can be symptomatic or asymptomatic. The symptomatic patients can be treated with laparoscopic cholecystectomy. The work has been reported in line with the SCARE criteria.

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