

Septate gallbladder in adult: case report

Abstract

Introduction: Septate gallbladder is rare in surgery. This may be an incidental finding during laparoscopic cholecystectomy.

Case history: A 42 year old female had laparoscopic cholecystectomy for symptomatic cholelithiasis. She had diagnosis of longitudinal septum during decompression of of gallbladder through port for retrieval of gallstones.

Conclusion: Septum of gallbladder is rare and may be diagnosed intraoperatively during laparoscopic cholecystectomy. This septate gallbladder has usually multiple calculi inside lumen.

Keywords: gallbladder, cholesterosis, histopathology, anomaly, septum

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Introduction

Septate gallbladder is of a rare occurrence and is usually diagnosed incidentally.¹ This is considered as a congenital anomaly and is mostly asymptomatic. Septum is either in transverse or longitudinal plane. Diagnosis may be made with ultrasound or during surgery. Septate gallbladder is usually associated with cholelithiasis or may coexist with other anomalies.² Coexisting septum of gallbladder may be diagnosed during laparoscopic cholecystectomy.

Case report

A 42 year old female reported with recurrent episodes of colicky abdominal pain. There was no any other associated symptom of jaundice, fever or any drug intake. Per abdominal examination findings were soft and non-tender abdomen. Ultrasound abdomen documented multiple calculi in gallbladder. Patient had laparoscopic cholecystectomy .Perioperative findings were distended gallbladder, mildly thickened gallbladder wall, containing multiple calculi with long cystic duct. After achieving of critical view of safety, individual clipping of cystic duct and cystic artery, gallbladder was shaved from liver. For retrieval of specimen through epigastric port, scooping of calculi from gallbladder for decompression of gallbladder was attempted. There were many empty scoops after retrieving attempts for extracting calculi from gallbladder. On careful inspection of gallbladder, a longitudinal septum was found dividing gallbladder into two compartments (Figure 1). This was a complete septum of gallbladder from fundus to infundibulum gallbladder with gross cholesterosis of gallbladder as well as of septum (Figure 2). Multiple calculi were present in anterior compartment forming bilobed gallbladder, with posterior compartment being empty. Histopathology of specimen were suggestive of chronic cholecystitis and cholesterosis. Follow period was uneventful.



Figure 1 & 2 Showing septum of gallbladder with cholesterosis.

Discussion

Septum of gallbladder is a rare entity.³ The etiology of septum of gallbladder is obscure, being mostly congenital in origin. This is suggested to be formed by aberrations leading incomplete resolution of solid stage in its development around the third month of fetal embryogenesis.⁴ Rarely, post inflammatory adhesions and compartmentalization leads to formation of septate gallbladder.⁵ Furthermore literature report a female preponderance of this anomaly.⁶ The septum gallbladder is mostly single but multiseptate gallbladder have also been reported.⁷ Plane of septum is either longitudinal called as bilobed gallbladder or in transverse plane called as Hour glass gallbladder.^{8,9} Septum of gallbladder may be complete or incomplete. These septum may contain smooth muscle fibers usually divides the gallbladder into two chambers.¹⁰ The septum may be communicating or non-communicating and communication between two cavities is via small opening.¹¹

Inflammation of gallbladder may be solely seen in either of the compartment or both. There is increased prevalence of formation of gallstones in septate gallbladder than in unseptated one.¹² The pinpoint communication between the cavities causes stasis of secretions inside



these two cavities in septate gallbladder Bile stasis secondary to gallbladder septation is possibly incriminated as the predisposing factor for cholelithiasis. Gallstones may be form in one of the cavities or both. Rarely, acalculus cholecystitis may be seen in septate gallbladder.⁶ Sometimes there may be associated anomalies with septate gallbladder like choledochal cyst or accessory hepatic duct.

Septate gall bladder is a congenital anomaly which is rarely reported, as they are usually asymptomatic and are found as a part of an evaluation for recurrent abdominal pain or rarely as a cause for jaundice¹³ This rare anomaly usually has an asymptomatic course and is diagnosed as an incidental finding without any clinical relevance.¹⁴ Rarely, however, septate gallbladder may cause recurrent attacks of abdominal pain¹⁵ Symptoms are usually caused by pressure in the small chambers of the gallbladder along with delayed emptying which may sometimes deem early cholecystectomy.¹¹ Misdiagnosis often leads to an unnecessary prolongation of the interval between diagnosis and operative treatment. Ultrasonography, computed tomography scan, 99mTcIDA scintigraphy, endoscopic retrograde cholangiopancreatography (ERCP) and magnetic resonance cholangiopancreatography are confirmatory in diagnosis.¹⁶ An expert radiologist may pick up septate gallbladder preoperatively while searching for cholelithiasis MRCP makes diagnosis early and definite preventing possible complications. Sometimes it can be misdiagnosed as choledochal cyst or leads pitfalls at ultrasound imaging, causing a false-positive diagnosis of gallstones.¹³ Intraoperatively, in laparoscopic cholecystectomy, septate gallbladder may be diagnosed while retrieving calculi from gallbladder for decompression to pass through epigastric port .Empty scoops from one of compartment in bilobed gallbladder points to diagnosis. Grossly, may be diagnosed by inspection of specimen. There is no treatment requirement for septate gallbladder unless associated with gallstone, recurrent abdominal pain, adenomyomatosis, cholesterosis or acalculus cholecystitis

Conclusion

Septum of gallbladder is a rare. Multiple calculi are commonly present in septate gallbladder. Presence of gallstones in one compartment with another compartment empty is suggestive of septum of gallbladder.

Declaration

Ethical approval

The need for ethical approval was waived off by the ethical committee/IRB of Government Gousia Hospital because of reasons as nature of the study being Case Report.

Data availability statement

The datasets generated during and/or analysed during the current case report is not publicly available but are available from the corresponding author on reasonable request.

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Conflicts of interest

The authors declare no conflicts of interest.

Consent statement

Written informed consent was obtained from the patient to publish this report in accordance with the journal's patient consent policy.

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