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Case Report

Incidental wandering gall bladder: a rare case report

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ABSTRACT

The pre-operative diagnosis of wandering gallbladder is challenging until complicated by torsion or necrosis. Ultrasonography remains the mainstay radiological investigation for gall bladder pathologies. Computed tomography can be used in complicated cases like gall bladder torsion. Free floating gall bladder may not be appreciated on ultrasonography as in our case report which has been discussed below.

Keywords: Wandering gall bladder, Cholelithiasis, Laparoscopic cholecystectomy, Free floating gall bladder

INTRODUCTION

Cholelithiasis is the most common surgical disease with prevalence of 2-29% in Indian population.[1] Laparoscopic cholecystectomy has become gold standard treatment option for gall stone disease. Many anatomical variations have been encountered and described in literature. Free floating or wandering gall bladder is one such anatomical variation and is present in 5% of population. It is when the gallbladder is not visualised in the gall bladder fossa. In such a case cystic duct and its mesentery are the only attachments of the gall bladder to the biliary system leading to its hypermobility and high risk of torsion and necrosis. It may be associated with hypermobile liver or colon. Review of literature reveals around 10 cases of wandering gall bladder worldwide.[2] We present a case of incidental wandering gall bladder with cholelithiasis.

CASE REPORT

A 45-year-old male with no known co-morbidities presented to the general surgery OPD with the complaints of on and off right upper abdominal pain for the past one year. It was associated with nausea and dyspepsia. There was no history of fever, vomiting or other associated abdominal complaints. No previous history of any abdominal surgery. General physical examination and per abdomen examination were normal.

An ultrasound abdomen was done which was suggestive of partially distended gall bladder with multiple calculi in its lumen, no pericholecystic fluid, wall thickness was normal, no intrahepatic and extra hepatic biliary dilatation.

Patient was planned for laparoscopic cholecystectomy. After preoperative workup patient was taken up for laparoscopic cholecystectomy. On entering the abdominal cavity, the inferior border of the liver was adhered to the anterior abdominal wall. Gall bladder couldn't be visualised in the gall bladder fossa (Figure 1).

On exploration, GB found free from the liver surface buried in omentum (Figure 2). There were no signs of torsion or necrosis (Figure 3).

Long mesentery and cystic duct and artery as the only attachments of gallbladder could be appreciated (Figure 4 and 5). After Calots triangle dissection, cystic duct and artery were identified and clipped. Rest of the procedure was uneventful.

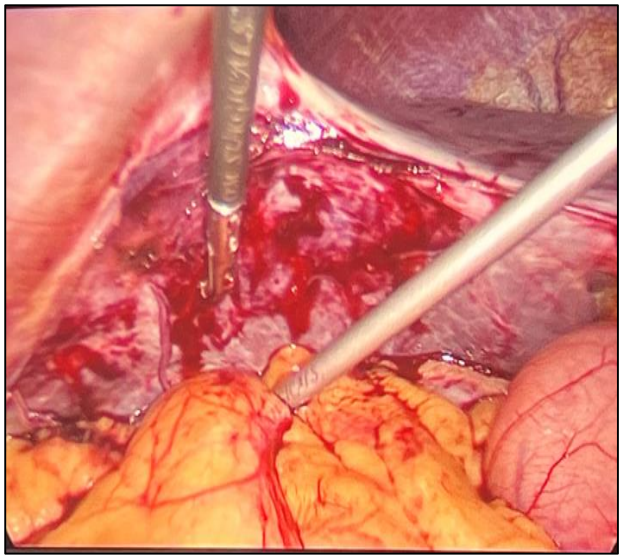

Figure 1: Inferior border of liver adhered to anterior abdominal wall with vacant gallbladder fossa.

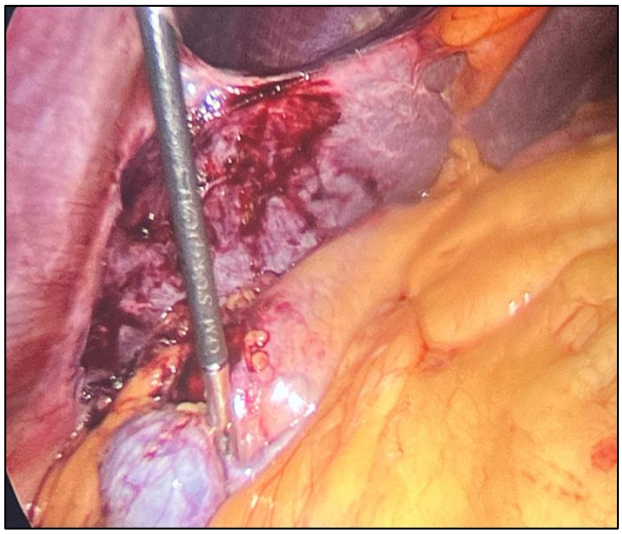

Figure 2: Gallbladder buried in the omentum free from the liver.

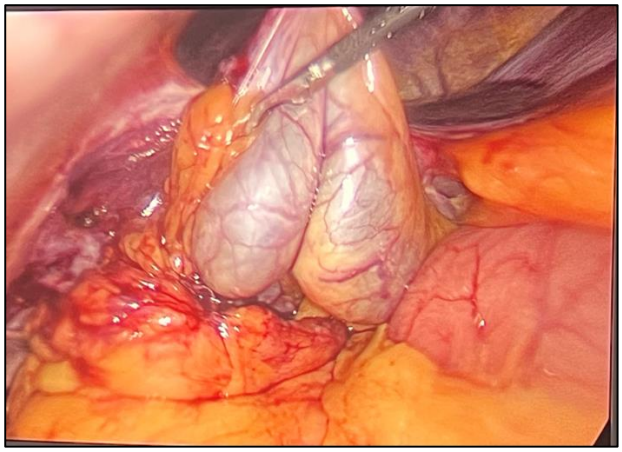

Figure 3: No signs of torsion or gangrene.

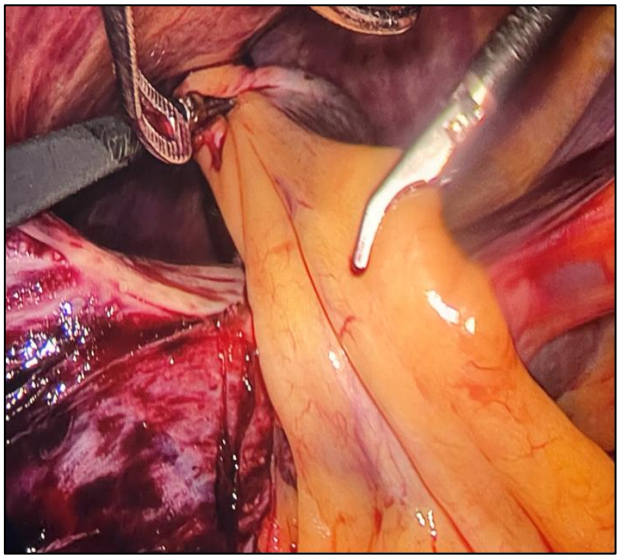

Figure 4: Image depicting long mesentery of gallbladder.

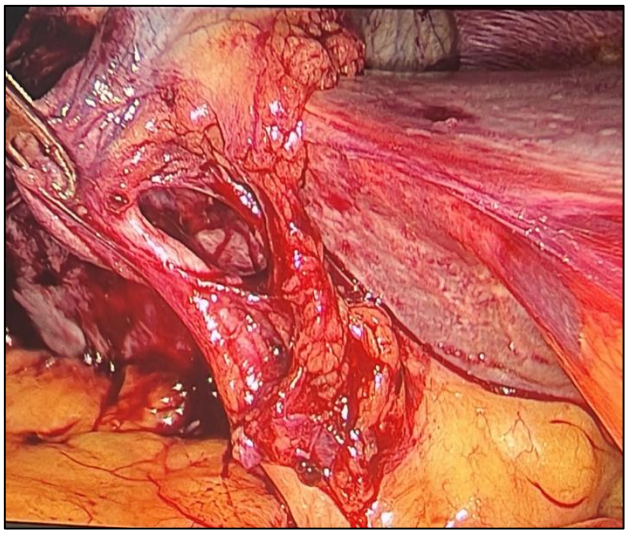

Figure 5: Image depicting cystic duct and artery as the only attachments of gall bladder to biliary system.

DISCUSSION

Wandering gall bladder is a rare entity with a high propensity for torsion and gangrene. The first case was described by Wendel in 1898.[3] Uncomplicated free-floating GB treated by laparoscopic cholecystectomy is rare. Etiology for wandering gall bladder is thought to be absent mesentery due to abnormal migration of pars cystica from hepatic diverticulum during 4th to 6th week of development.[4] Increasing age increases the risk of torsion in patients with free floating gall bladder due to liver atrophy, loss of body fat and elasticity.[5] Ectopic gall bladders should be differentiated from free floating gall bladder. The former entity can be present anywhere in the abdomen which makes it imperative to do a diagnostic laparoscopy of entire abdomen before commencing laparoscopic cholecystectomy. Literature has shown

cases of left sided gallbladders with and without situs inversus.[6] The clinical presentation can be variable from asymptomatic cholelithiasis, transient hyperbilirubinemia or torsion.[2] Treatment modality is mainly laparoscopic cholecystectomy to open cholecystectomy which is mainly dependent upon the expertise of the operating surgeon.

CONCLUSION

A cadaveric study done on 45 cadaveric livers has depicted the rarity of free-floating gallbladders with incidence of 4.44%. Knowledge regarding the same is necessary for the anatomists, hepatobiliary surgeons and the radiologists. Wandering abdominal pain can raise the suspicion of this particular gallbladder anatomical variant. A clear knowledge of critical view of safety is necessary to deal with such anomalies intraoperatively.

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