INTRODUCTION

Gallbladder duplication is a rare anomaly reported to occur in 1 per 4000 autopsy specimens. Limited imaging modalities, variations in the anatomic locations of the double gallbladders and various differential diagnosis result in overlooking this entity. The diagnosis of double gallbladder is made pre-operatively, in fewer than half of the cases it is often found incidentally during the surgery for cholelithiasis. Occasional case reports of post-cholecystectomy patients having a second attack of cholecystitis have been published. This case illustrates the need for complete removal of gallbladder during surgery. Because other congenital vascular and biliary duct anomalies may accompany this pathology, precise intraoperative recognition of vascular and biliary anatomy is necessary to avoid inadvertent damage to the biliary system and a need for re-exploration.

CASE REPORT

A 17 years old female presented with right upper quadrant pain for 3 months. Vitally she was stable and physically were unremarkable. Abdominal examination revealed soft abdomen with tenderness on deep palpation in right hypochondrium. On laboratory investigation, the baseline values of haematology, biochemistry and LFTs were within normal limits and ultrasound abdomen showed multiple stones in gallbladder measuring 3-5 mms. Provisional diagnosis of chronic calculous cholecystitis was made and patient was prepared for elective cholecystectomy. Patient was explored by right subcostal [Kocker’s] incision, adhesions were found over gallbladder and Calots triangle which were freed by careful dissection. The fundus of gallbladder was traced to its body then another part of gallbladder was found lying over the CBD encircling the neck (Figure 1). Both parts of gallbladder were freed of adhesions and found to open in a single infundibulum leading to a single cystic duct. The cystic duct ligated and incised and the cystic artery as well, and then gallbladder freed from liver bed with complete secure of hemostasis. Thus the anomaly consisted of duplication of the body and fundus into two separated lobes both of which entered a single infundibulum. One lobe was larger and the second one was smaller. The patient had uneventful post-operative recovery and discharged on the 3rd postoperative day.

DISCUSSION

Gallbladder duplication is a rare anomaly reported to occur in 1 per 4000 autopsy specimens. According to the Boyden classification, these congenital anomalies of gallbladder are classified according to the ductal formation as “V-shaped” (or bilobed), “Y-shaped” and “H-shaped” (or ductular) gallbladder types. The accessory gallbladder of ductular type may be adjacent to the normal organ in the gallbladder fossa or may be intrahepatic, subhepatic or within the gastrohepatic ligament.

ABSTRACT

We report a rare case of duplication anomaly of gallbladder in a female aged 17 years, who presented with right hypochondrial pain for 3 months. Ultrasound findings suggested multiple stones in gallbladder and per-operatively she was found to have bilobed gallbladder. This case emphasizes the need for complete removal of both gallbladders during initial surgery, as a failure of this may result in recurrence of symptoms and stones and a need for re-exploration.

Key words: Bilobed gallbladder. Duplication anomaly. Cholelithiasis. Cholecystectomy.
The gallbladder in this case was consistent with the “V” type. The disease entities reported in the second or occasional third moiety include cholelithiasis, cholecystitis and carcinoma. Careful appraisals of reported literature clearly emphasize the need for removal of accessory or duplicate gallbladders to prevent surgical complications and repeated explorations. The stones usually present in the smaller lobe as in this case. The differential diagnosis of double gallbladder include gallbladder fold, focal adenomyomatosis, phrygian cap, intraperitoneal fibrous (Ladd's) bands, choledochal cyst, pericholecystic fluid and gallbladder diverticulum. Because of associated anatomical variations of cystic duct and hepatic artery, this congenital anomaly is important to know for surgeons. In diagnostic imaging, developmental anomalies of gallbladder are usually an incidental finding. Ultrasound, MRCP, CT scan, scintigraphy and oral cholecystography have their limitations and are not 100% sensitive in identifying biliary ductal anomalies. The surgeon may thus be faced with the prospect of a familiar looking gallbladder and an additional structure that might be missed or presumed to be normal. This could account for the missed cases reported in the literature and in those who underwent a second operation for a diseased remnant gallbladder. Attention is being focused on the need of complete evaluation during surgery by intraoperative cholangio-graphy to prevent inadvertent injury to the biliary system.

Anatomy of the gallbladder and extra hepatic biliary tree should be very much clear in a surgeon’s mind at the time of cholecystectomy to avoid misdiagnosis, inadvertent injuries and a need for second cholecystectomy.

REFERENCES