Case Report

A Case study of Duplication of Gall Bladder

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Abstract

Introduction: Gallbladder duplication is a rare congenital malformation, occurring in about one per 4000 live births. **Case Report:** A 45 year-old woman presented with vague epigastric and Rt. Hypochondriac Region pain, associated with fever & nausea – (non specific complaints). Physical examination was un-eventful, Sonography was advised as a routine investigation which revealed gall bladder duplication. The finding was confirmed by non contrast enhanced localized CT Scan. Therefore it was considered as an incidental finding. **Conclusion:** Duplication of the gallbladder is a rare congenital abnormality which is usually not associated with clinical signs & symptoms-therefore is an incidental finding.

Keywords: Sonography, Duplication of Gall Bladder, Incidental finding.

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INTRODUCTION

Gallbladder duplication is a rare congenital malformation, occurring in about one per 4000 births[1]. Congenital anomalies of the gallbladder and anatomical variations of their positions are associated with an increased risk of complications after laparoscopic cholecystectomy[2–5].

CASE REPORT

We report here a case of Duplication of Gall bladder. A 45 year-old woman presented with epigastric and right upper quadrant pain associated with fever, nausea. Physical examination did not show any significant or specific finding, Sonography was advised as a routine investigation which revealed gall bladder duplication. The finding was confirmed by non contrast enhanced localized CT Scan.

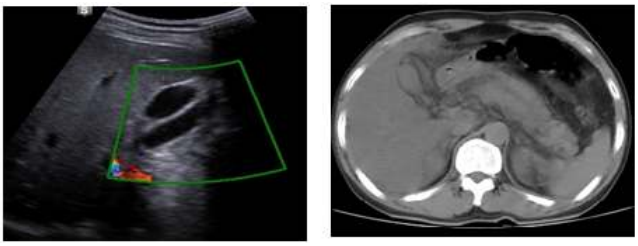

Figure 1: USG Abdomen showing double gall bladder
Figure 2: CT –Abdomen confirming these findings.

DISCUSSION

Gallbladder duplication is a rare congenital malformation, that occurs in about one in 3800–4000 births[1]. Congenital anomalies of the gallbladder and anatomical variations of their positions are associated with an increased risk of complications after laparoscopic cholecystectomy, therefore Preoperative imaging is often helpful for diagnosis of normal variants of biliary system. Congenital malformations are considered asone of the most important predisposing factors for iatrogenic bile duct injuries during cholecystectomy. Duplication of Gall Bladder is thought to be due to exuberant budding of the developing biliary tree when the caudal bud of the hepatic diverticulum divides[6,7]. The first reported human case was noted in a sacrificial victim of Emperor Augustus in 31 BC[5]. Because of associated anatomical variations of cystic duct and hepatic artery, this congenital anomaly is important for surgeons [5] to know before surgery. Senecail *et al*. found morphologic variations and abnormalities in

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more than 33% but only 3 cases of real duplication are noted from ultrasonographic exploration of the gallbladder performed on 1823 patients[8]. Anatomic variants of gallbladder duplication are still differentiated according to Boyden's [1, 6] Vesicafelleadivisa (bilobed or bifid gallbladder, double gallbladder with a common neck),Vesicafellea duplex (double gallbladder with two cystic ducts),Y-shaped type (the two cystic ducts uniting before entering the common bile duct), H-shaped type (ductular type, the two cystic ducts entering separately into the biliary tree).Differential diagnosis includes gallbladder diverticula, gallbladder fold, Phrygian cap, choledocal cyst, pericholecystic fluid, focal adenomyomatosis, and intraperitoneal fibrous bands[2]. The incidence and nature of clinical problems associated with duplicated gallbladder are similar to those encountered in the single viscus, including acute or chronic cholecystis, cholelithiasis, empyema, torsion, cholecystocolic fistula, lump in the abdomen, and carcinoma. There are no specific symptoms attributed to a double gallbladder. Diagnosis includes various modalities like ultrasound, Oral cholecystogram (OCG), scintigraphy, ERCP, PTC, CT scan and MRI. OCG and scintigraphy depend on certain conditions such as hepatobiliary uptake and excretion with a patent cystic duct. ERCP and PTC are the invasive procedures and will be used rarely. Ultrasound imaging is the modality of choice, with a high sensitivity and specificity. CT scan and MRI are the nonvasive modalities and can be used to delineate the anatomy[15]. Congenital duplication of gall bladder tends to lead to biliary complications, such as cholelithiasis and acute cholecystitis of both gallbladders. The clinical features are usually Right Upper Quadrant pain and tenderness and sometimes jaundice[16]. In symptomatic patient, cholecystectomy is recommended with the excision of both Gall Bladders[15]. Simultaneous removal of both gallbladders at surgery is recommended to avoid cholecystis and symptomatic gallstones in the remaining organ . Several publications reported successful laparoscopic cholecystectomy for a duplicate gallbladder [2, 4, 9,10,11,12,13]. Schroeder and Draper reported a successful laparoscopic cholecystectomy for a triple gallbladder[14] so these cases can be managed by Cholecystectomy by laparoscopic surgeries.

CONCLUSION

Duplication of the gallbladder is a rare congenital abnormality, which requires special attention by the laparoscopic surgeons to reduce post operative complications. Ultrasonography is the imaging modality of choice for the diagnosis of this anomaly.

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