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Original Research Paper

General Surgery

LAPAROSCOPIC CHOLECYSTECTOMY IN A CASE OF DUPLICATION OF GALL BLADDER: A RARE CASE REPORT

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ABSTRACT

INTRODUCTIONDuplication of gall bladder is a rare congenital anomaly. Incidence about 1 in every 4000 births. Anatomical variations of gall bladder of their positions have increased risk of complications mainly after laparoscopic cholecystectomy. So proper pre operative imaging is needed to avoid these complications. These type of anomalies could be associated with cholelithiasis. Now laparoscopic cholecystectomy is the treatment of choice for cholelithiasis. Intra operative anatomy should be clear.

CASE DISCUSSION A 14 year female patient was attended the emergency with complain of pain in the right upper quadrant since last 1 day, pain was colicky in nature and increased with food intake. Pain was associated with nausea and 2 episodes of vomiting. USG of hepatobiliary region showed two separate gall bladder with a common cystic duct (?Duplication of gall bladder). Patient then had a CT scan and MRCP to confirm the diagnosis and also to look for other vascular and biliary tract anomalies. Laparoscopic Cholecystectomy was planned, on entering the abdomen two separate fundus noted. After dissecting Calot's triangle, two separate cystic ducts were noted. These ducts later joined together and were draining into CBD, a single cystic artery was visualized properly.

CONCLUSION This rare anomaly of duplication of gall bladder dose not have any specific sign and symptoms except with gall stone disease and the chance of developing gall stone disease in a duplicated gall bladder is same as the normal variant. Though it is a rare case, it is important to know the different anatomical variations of gall bladder, now a days USG, CECT, MRCP is easily available, these can be used for diagnosis preoperatively so that intraoperative injuries can be avoided.

KEYWORDS : Duplication Of Gall Bladder, Cholelithiasis, Laparoscopic Cholecystectomy.

INTRODUCTION

Duplication of gall bladder is a rare congenital anomaly. Incidence about 1 in every 4000 births. Anatomical variations of gall bladder of their positions have increased risk of complications mainly after laparoscopic cholecystectomy. So proper pre operative imaging is needed to avoid these complications. Congenital malformation is being considered as an important predisposing factor for bile duct injury. These type of anomalies could be associated with cholelithiasis. Now laparoscopic cholecystectomy is the treatment of choice for cholelithiasis. Intra operative anatomy should be clear, if any confusion then intra operative cholangiogram can be performed.

CASE REPORT

A 14 year female patient was attended the emergency with complain of pain in the right upper quadrant since last 1 day, pain was colicky in nature and increased with food intake. Pain was associated with nausea and 2 episodes of vomiting. No history of fever or yellowish discoloration of urine or eye. Her LMP was 10 days ago, her menstrual history was normal, no any addiction history with normal bowel bladder habit.

On general examination, patient was alert, conscious, cooperative, pulse-80 bpm, BP-110/70 mm Hg. On local examination, there was guarding and tenderness of the right upper quadrant, Murphy's sign positive.

On investigating, USG showed two separate gall bladder(Fig-1) with a common cystic duct (?Duplication of gall bladder).

Patient then had a CT scan and MRCP(Fig-2) to confirm the diagnosis.

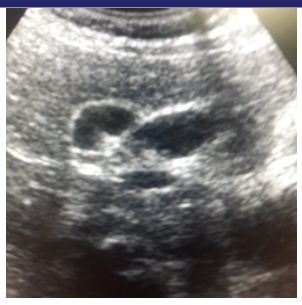

Fig-1- Usg Shows Duplication Of Gall Bladder

Fig-2-MRCP Findings

Patient was treated conservatively with antibiotics and analgesics. Then patient underwent elective laparoscopic Cholecystectomy after 6 weeks. As two separate gall bladders, two separate cystic ducts, common bile duct and cystic artery were visualized properly (Fig-3A and 3B), intra operative cholangiogram was not done.

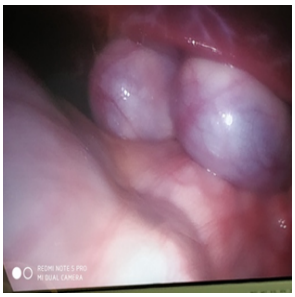

Fig-3A- Double Fundus

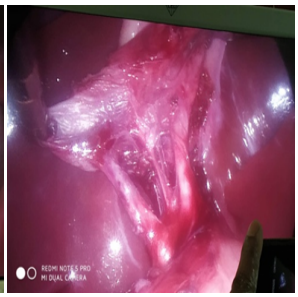

Fig-3B - Duplicaion Cystic Duct

Inspection of the specimen showed two separate gall bladders with two separate cystic ducts (Fig-4)

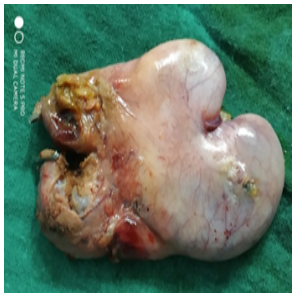

Fig-4- Specimen Showing Two Gall Bladder Fundus With Two Separately Cliped Cystic Ducts.

Post op period was uneventful. Patient was discharged after 3 days and advised for proper follow up. Histopathology showed duplication of gall bladder (5*2.5 cm) with chronic cholecystitis.

DISCUSSION

Duplication of gall bladder has an incidence of approximately one in 4000, the exact incidence is not known. It is important to diagnose it preoperatively to avoid unnecessary bile duct injury.

Duplication of gallbladder are classified according to Boyden's classification. The two main types are, 1.Vesica fellea divisum or the bi-lobed gallbladder, here a longitudinal septum or invaginating cleft divide the lumen into two chambers, here both the gall bladder share a common embryological origin. 2. Vesica fellea du-plex, (Fig-5) here two separate gall bladder with two separate cystic duct. The bi-lobed gallbladder again can be sub classified into Y shaped type, here type or ductular type , here two separate cystic duct entering into the gall bladder separately.

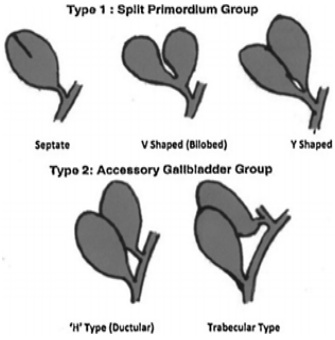

Fig-5- Boyden's Classification.

There are some differential diagnosis of duplication of gall bladder like focal adenomyomatosis, ladd's band, choledocal cyst, pericholecystic fluid , gallbladder diverticulam, gall bladder fold.

In our case two separate gall bladders were divided with a septum and the two cystic ducts were joining together before entering into the common bile duct. That is type 1 Y shaped according to Boyden's classification.

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