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Case Report

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Wandering gallbladder

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ABSTRACT

Cholecystectomy preferably laparoscopy is gold standard treatment for symptomatic cholelithiasis. However for some anatomical and/or pathological reasons the procedure is converted to open. Conversion rates at high volume centres is <5%. We present a case report of 48 aged lady, previously operated multiple times for hydatid liver and lung with symptomatic cholelithiasis. She was planned for laparoscopic cholecystectomy. During the procedure, inadvertent anatomy of "the wandering gallbladder" was noted. Here we describe the management approach selected for this type of unusual presentation. We recommend noting down detailed past history (preferably surgical) and preoperative consideration of deviant anatomical location and findings of gallbladder. We should maintain a low threshold for conversion to open.

Keywords: Conversion, Gall bladder, Hydatid liver disease, Laparoscopy, Lap converted to open, Laparoscopic surgery, Liver hypertrophy, Open cholecystectomy, Surgical skill

INTRODUCTION

Gallstones have been known since distant past and have even been observed during autopsies of Egyptian mummies. Gallstone disease has a high prevalence in India. Nearly 80% of patients present as asymptomatic and gallstones are ordinarily detected by ultrasonography, during the evaluation of irrelative medical states.[1] In 1867, John Stough Boobs executed the first cholecystectomy and after nearly a century later in 1985, Eric Muhe accomplished first laparoscopic cholecystectomy, which had led to the contemporary advancement in gallstone management. The traditional open approach has been reinstated by laparoscopic cholecystectomy. However open cholecystectomy is largely reserved to cases in which laparoscopy could not have proceeded. Till date more than 3 decades later, Laparoscopic cholecystectomy has been established as the gold standard procedure for benign gallbladder diseases. In certain cases, the procedure needs to be converted to open to safely execute the operation. The familiarity with the rate and consequence of the underlying conditions for conversion helps surgeons throughout preoperative evaluation, furthermore augments the informed consent of patients. Conversion shouldn't be considered technical incompetence however, in cases where it is indicated it should be accepted by the surgeon and patient as a better surgical practice than laparoscopy. At high volume centres across the globe <5% cases, is converted to open. Among the patients who underwent conversion, 59% were observed to have intraoperatively acute cholecystitis, succeeded by Inflammation (35%), adhesions (28%), and difficult anatomy (22%). However, in present case element of conversion was non-visualisation of the gallbladder. Conversion shouldn't be perceived as a complication.[2] Haemorrhage, gallbladder perforation, bile leakage, bile duct injury, perihepatic collection, and visceral injury are being observed as the true complications of Laparoscopy conversion. The surgeons' willingness and expertise to

convert to open cholecystectomy prevails to be crucial to the safety of the procedure.

CASE REPORT

This lady is aged 48, resident of Bulandshahar, Uttar Pradesh, homemaker, reviewed in surgical OPD with complaints of on and off dull pain in the right upper quadrant of the abdomen for 4 years, colicky, no radiation of pain to back; right shoulder. Not associated with nausea and vomiting, no history of fever, jaundice. She is a known case of hydatid disease of liver operated in 1989 and 1993 for complaints of dull aching pain and discomfort in the abdomen. In 2014 she came with similar complaints as symptoms recurred 10 months back and received prior medical management since then. She was diagnosed with recurrent hydatid disease of the right lobe of liver with intrathoracic extension. On 21/1/2014 she underwent excision of liver hydatid and wedge resection of lung hydatid and diaphragmatic repair. In postoperative day 2 she developed bile leak through the abdominal drain, ERCP with sphincterotomy with 7 Fr × 7 cm double pigtail stenting of left hepatic duct leak done. On examination, per abdominal: soft, non-tender, left lobe of liver palpable with rounded edges, liver span 8 cm from the subcostal margin. Well-healed right subcostal and right thoracoabdominal scar. Blood investigations: complete blood count, liver function tests-within normal limits. On abdominal ultrasonographic correlation: gallbladder: normal wall thickness, a single 1.6 cm calculus in gallbladder lumen.

CECT abdomen reported atrophy of the right lobe of the liver with hypertrophy of the left lobe. The gallbladder is positioned posteriorly and is abutting the right kidney. The stent was seen in situ mild central and peripheral intrahepatic biliary radical dilatation. With due informed written consent, she was planned for laparoscopic/open cholecystectomy.

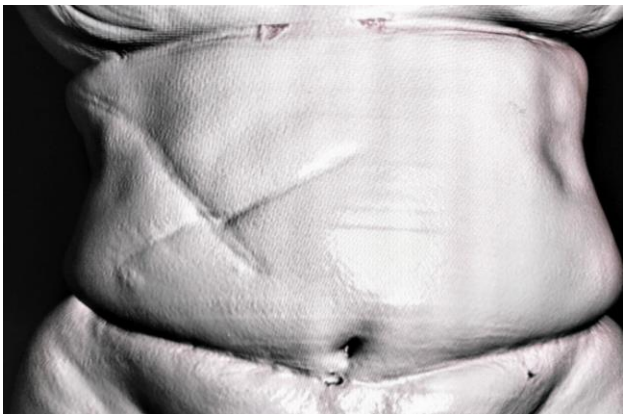

Figure 1: Scar of previous multiple surgeries

Challenges: difficult approach

Because of multiple laparotomies, we chose the palmar approach to gain entry to the peritoneal cavity, to find the gallbladder. We knew that there was a stent in CBD, we were a bit reassured that CBD can be saved even if the callots' is difficult. There were lots of adhesions which were dissected out to reach the liver, but the liver did not have the usual sharp edge, it had become rounded and left lobe was quiet hypertrophied (Figure 2).

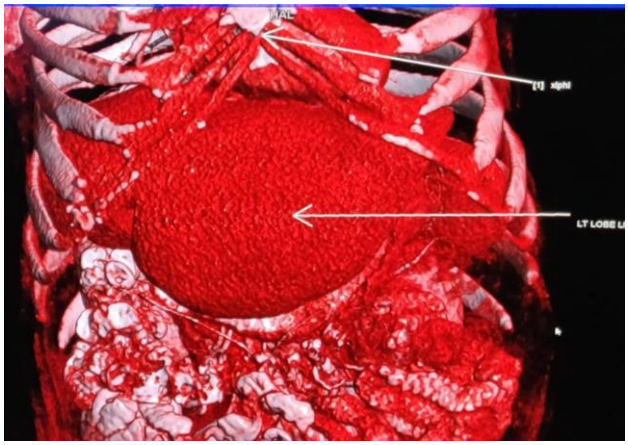

Figure 2: CECT images showing left liver lobe hypertrophy.

We saw the entire liver bed but could not find the gallbladder. Corroborating with the CT film, it appeared the gallbladder is lying next to the right kidney, in the hepatorenal area. We dissected till there, still gallbladder not found (Figure 3).

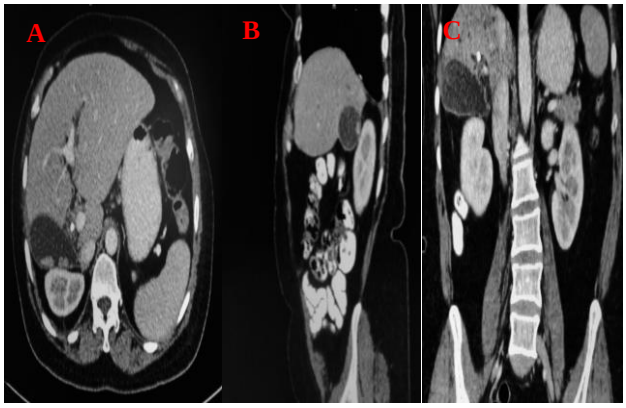

Figure 3 (A, B, C): Gallbladder is positioned posteriorly and is abutting the right kidney. Stent seen in situ mild central and peripheral IHBRD.

Then after nearly 1.5 hours of dissection, we planned to convert it to open. Even during the open technique, we couldn't locate the gallbladder. On palpation, a structure was felt on the right side, the consistency of which was different from the liver, and on separating it, the gallbladder was visualized. While palpating we could feel a soft structure embedded in liver and its consistency appeared to be similar to gallbladder, so we tried to dissect the layer of tissue over gallbladder, then we could see the gallbladder which was lying horizontally, in the extreme right of the liver near to the right kidney with

retrograde approach, we dissected the fundus of gallbladder, fortunately the callots was not difficult, and to our saviour CBD stent was in situ (Figures 6 and 7).

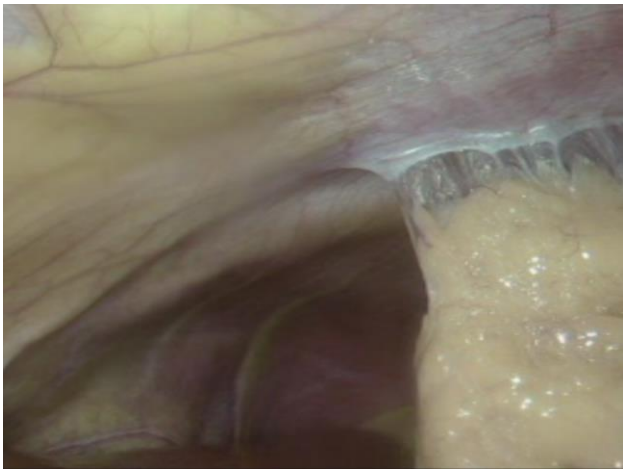

Figure 4: Adhesion to anterior abdominal wall.

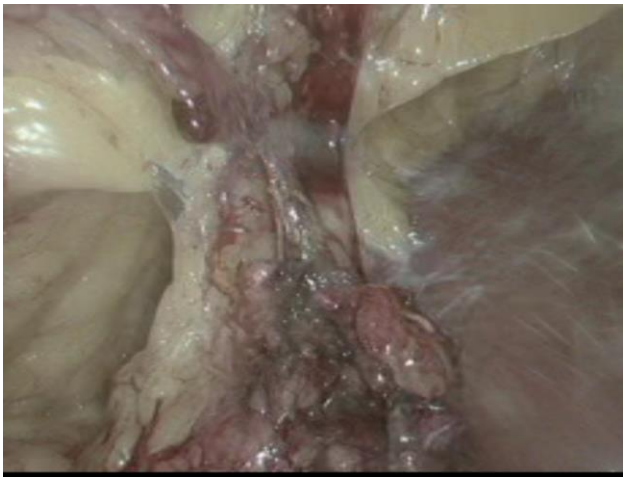

Figure 5: Liver adhesions to abdominal wall being dissected.

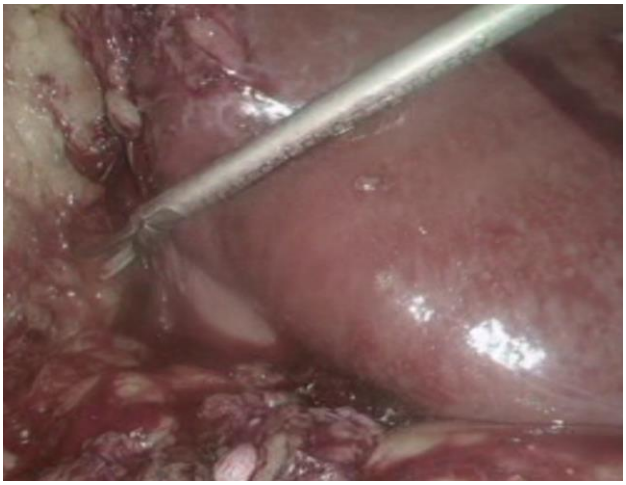

Figure 6: Rounded margin of hypertrophied liver.

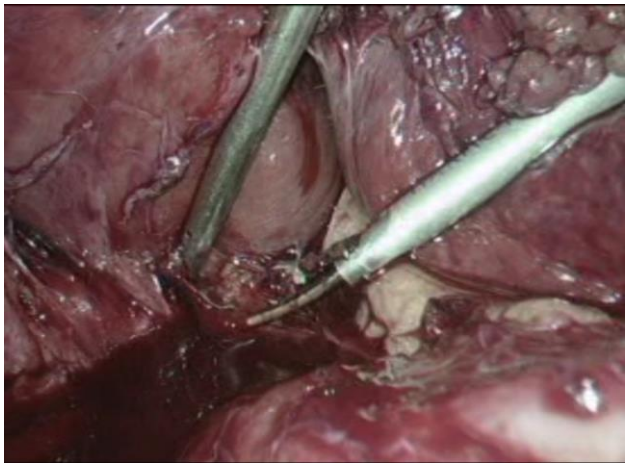

Figure 7: The usual site where gallbladder is located.

Retrospectively we could make out that during previous surgeries, right hepatic duct and right hepatic artery would have been damaged and injured and that was the reason the stent in the CBD was actually in CHD extending and was not reported in CHD, because of these the left lobe was hypertrophied to such an extent that the remnant right lobe was pushed to right side along with the GB near the right kidney. Gallbladder retrieved in pieces.

DISCUSSION

Ectopic gallbladders are a rare entity.[3] With a history of prior surgery generally in the hepatobiliary system, rarely makes the gallbladder to 'wander' and attain a different anatomical location, as observed in our case. Awareness of the possibility of such rare finding has to be ruled and preoperatively. Such cases of ectopic and deviant gallbladder have been associated with increased intra and postoperative complications.[3]

CONCLUSION

With multiple surgeries involving particularly the liver, if we are suspecting injury; hypertrophy of the liver should be kept in mind and gallbladder can be found displaced anywhere. Conversion shouldn't be considered a technical failure. Although MRCP is a better modality to look for anatomical structures like gallbladder, biliary tree, CT also helps in these cases.

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