Learning from errors

Gallstone pancreatitis after laparoscopic cholecystectomy

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Correspondence to Mr Jason M Fitchett, jasonfitchett@hotmail.com**Summary**

This case report describes the rare presentation of an unknown dumbbell shaped (or hourglass with diaphragmatic membrane) gallbladder presenting as gallstone pancreatitis 5 months after laparoscopic cholecystectomy for cholelithiasis and our management strategy. This case highlights the importance of ensuring adequate exposure at the time of operation to prevent such presentations.

BACKGROUND

Gallbladder disease represents a significant proportion of the general surgeons' workload. Almost every acute intake is likely to include at least one presentation of biliary colic, cholecystitis or gallstone pancreatitis. We present an interesting but rare case of a patient with what appeared to be a second gallbladder who continued to experience right upper quadrant pain after laparoscopic cholecystectomy following biliary colic.

CASE PRESENTATION

A 75-year-old woman presented with symptoms of biliary colic and confirmed cholelithiasis on ultrasound examination. She underwent laparoscopic cholecystectomy in another unit, with no immediate complications. Histology confirmed an unopened gallbladder consistent with chronic cholecystitis and cholelithiasis. However, she continued to experience right upper quadrant abdominal pain and 5 months later presented with severe acute pancreatitis requiring intensive therapy unit admission for 4 weeks. She was discharged back to the ward but continued to experience identical pains as prior to her cholecystectomy.

INVESTIGATIONS

A repeat ultrasound reported several stones within the gallbladder. A magnetic resonance cholangiopancreatography showed a thin walled structure resembling a gallbladder containing calculi connected to the cystic duct. A hepatobiliary iminodiacetic acid scan showed normal uptake and clearance of tracer by the liver with accumulation in the structure of interest. Review of a CT prior to the cholecystectomy showed a possible bilocular dumbbell shaped gallbladder with what appeared to be a diaphragmatic membrane giving an hourglass appearance (figure 1).

DIFFERENTIAL DIAGNOSIS

The differential diagnoses included a walled off collection as a result of granulomatous reaction to dropped gallstones or a bilobed or duplex gallbladder with one half having been removed at previous surgery.

TREATMENT

She underwent an open exploration where a gallbladder was identified in the normal location. A clip from previous surgery was located on the fundus of the gallbladder (figure 2). Standard cholecystectomy was performed. At the time of operation, we were sure to have adequate exposure to identify a single non-dilated tubular structure exiting the gallbladder as the cystic duct. This would have prevented the recurrent problem if done at the time of previous cholecystectomy.

OUTCOME AND FOLLOW-UP

Postoperative ultrasound at day 3 showed a 3 cm collection in the gallbladder fossa and a trace of fluid around the inferior edge of the liver consistent with time from surgery. She had an uneventful recovery and complete resolution of symptoms.

DISCUSSION

In the UK, acute pancreatitis is commonly due to gallstone disease or alcohol consumption. It is routine, therefore to image the biliary tree in such patients and those who have had a previous cholecystectomy. The common bile duct is imaged to ensure there are no residual stones in the common bile duct. Our patient had hypercholesterolemia and hypertriglyceridemia, which we thought of as the cause of her pancreatitis as she was a teetotaler and had a previous cholecystectomy. However, when she came off the ventilator and repeatedly complained of right upper quadrant pain, we re-investigated the biliary system. We used multiple investigations to ensure that there was indeed a gallbladder present before embarking on surgery.

Bilobed or double gallbladder is rare¹⁻⁴ and was first described by Morgagni in 1769.³ The true incidence is unknown as symptomatic presentation for imaging is required for true numbers. The incidence of duplication of any part of the biliary system has been quoted at 1 in 4000 on postmortem studies.⁴ The hourglass gallbladder is the rarest variant of congenital biliary malformations.³ We should consider congenital anomalies in patients

Figure 1 Single hourglass shaped gallbladder (bilocular with diaphragmatic membrane).

Figure 2 Intraoperative image of clip from previous laparoscopic cholecystectomy across waist of hourglass (or dumbbell) shaped gallbladder.

presenting with recurrent biliary symptoms after cholecystectomy. In this case, rather than duplication of the biliary system, the gallbladder itself was duplicated by the presence of the transverse membrane leading to a dumbbell shape. Unfortunately this was not identified at the time

of laparoscopic cholecystectomy and only the distal sac was removed. The learning point from this case is the importance of obtaining adequate exposure at the time of operation to ensure that structures are fully visualised and consistent with expected findings.

Learning points

- ▶ Adequate exposure is essential for safe surgical practice to prevent iatrogenic patient experiences.
- ▶ Identify a non-dilated tubular structure as the cystic duct exiting the gall bladder.
- ▶ Biliary tree malformations are rare but likely to be encountered sporadically throughout the career of a busy upper gastrointestinal surgeon.
- ▶ Consider the possibility of iatrogenic causes for ongoing pain after a procedure that should have resolved the symptoms.

Competing interests None.

Patient consent Not obtained.

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