Full Title: Management of gallstone pancreatitis in the vagrant liver

Short Title: Gallstone pancreatitis in a vagrant liver

Lawrence F Lau MBBS, FRACS

Brett Knowles MBBS, FRACS

Adrian Fox MBBS, FRACS

Simon Banting MBBS, FRACS

*Hepato-Pancreato-Biliary Unit
St Vincent's Hospital, Melbourne*

Corresponding author:

Mr Lawrence F Lau

lawrence.lau@svha.org.au

Lvl 7, Inpatient Services Building

St. Vincent's Hospital, 41 Victoria Street

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Management of gallstone pancreatitis in the vagrant liver

The vagrant liver¹ is a rare condition due to laxity or inadequate formation of the coronary and triangular ligaments which normally contribute to its fixation and has been associated with colonic redundancy and hypermobility. We present a case of a gallstone pancreatitis in an adult patient with hepato-pancreato-biliary heterotopia secondary to omphalocele which was repaired at birth.

Case Report:

A 72-year-old woman presented with a one day history of left upper quadrant pain without radiation. Her past surgical history included omphalocele repair at birth and small bowel resection for bowel obstruction fifty years ago. Medical comorbidities included chronic bronchitis and hypertension. Upon admission, she was afebrile and haemodynamically stable with percussive tenderness in her epigastric region. Her initial white cell count was $32 \times 10^9/L$, lipase was 3000 U/L, bilirubin was $29 \mu\text{mol/L}$ and a diagnosis of mild acute pancreatitis was made. An ultrasound scan showed sludge within the gallbladder and a 5mm common bile duct but did not reveal choledocholithiasis. A computed tomography (CT) scan was performed which revealed uncomplicated pancreatitis and delineated her abnormal anatomy which includes a displaced liver located centrally within the abdomen with a 5cm long common hepatic vein which tethers the inferior vena cava anteriorly, an intra-peritoneal pancreas, and non-rotation of the colon with loops of small and large intestine filling the right subdiaphragmatic space (Figures 1 a, b and c). Magnetic resonance cholangio-pancreatography (MRCP) revealed an inverted biliary tree with choledocholithiasis (Figure 2).

She underwent endoscopic retrograde cholangio-pancreatography (ERCP). This was performed under propofol sedation by an anaesthetist with intravenous tazocin and rectal indomethacin given prior to the procedure. Due to her history of bronchitis, she was unable to tolerate the usual prone position and the ERCP was performed in the supine position. The sphincter of Oddi was catheterized and initial guide-wire insertion revealed a cranial trajectory, which was recognized as entering the pancreatic duct. The wire was subsequently repositioned to obtain a caudal/transverse trajectory prior to confirming cannulation of the inverted common bile duct with the injection of contrast via a sphincterotome cannula. A routine sphincterotomy was performed and a 6mm CBD stone was extracted using a 12mm balloon (Figure 3). The patient recovered with no complications and was discharged the following day after declining immediate cholecystectomy.

Although it is unlikely that this patient's hepato-pancreato-biliary heterotopia increased her risk of gallstone pancreatitis, her uncommon anatomy highlighted some interesting considerations to this common diagnosis. Her initial examination revealed epigastric peritonism presumably due to the intraperitoneal location of her pancreas, a finding atypical for mild pancreatitis. During the ERCP to clear the common bile duct, careful consideration of the patient's altered anatomy decreased her risk of post-ERCP pancreatitis by avoiding contrast-injection into the pancreatic duct². Although this

patient declined immediate cholecystectomy, an operation will likely require an open lower abdominal approach.

An omphalocele is a rare congenital defect due to the failure of abdominal organs returning into the abdominal cavity during the tenth week of intrauterine life. Therefore at birth, the intestines and liver, protrude through the ventral wall defect within a peritoneal sac. The prevalence of omphaloceles is approximately 1 per 3000-4000 births in Western countries³. With increased early detection and evolution in the surgical management over the past five decades, most infants reach adulthood with a good quality of life³. Only one other case has been reported describing a wandering liver in an adult⁴.

This case concludes that with careful consideration, hepatic vagrancy need not compromise care in the treatment of gallstone pancreatitis.

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Figure 1a.tif

Figure 1b.tif

Figure 1c.tif

Figure 2.tif

Figure 3.tif

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Author/s:

Lau, LF;Knowles, B;Fox, A;Banting, S

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