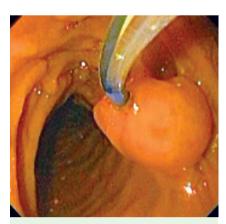
# Endoscopic retrograde cholangiopancreatography in situs inversus partialis



**Fig. 1** Papilla oriented to the right side, at the 3 o'clock position.

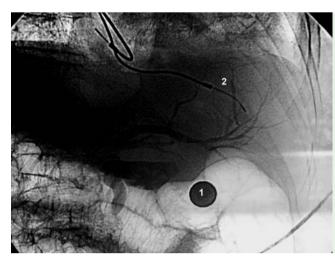


Fig. 2 The radiographic appearance in the supine position. The gallbladder and bile ducts are transposed to the left side: 1, coin placed on the left upper quadrant; 2, pacemaker electrodes.

Situs inversus viscerum is a rare autosomal recessive condition in which the organs are transposed to the opposite side. Two different conditions may be described: situs inversus totalis (with complete transposition of all viscera, abdominal and thoracic) or, more rarely, situs inversus partialis (SIP), with selective affection of one or several viscera [1]. We present the peculiar endoscopic and cholangiographic findings associated with SIP when endoscopic retrograde cholangiopancreatography (ERCP) was performed in a patient with choledocolithiasis.

An 88-year-old woman was admitted with abdominal pain at the epigastrium and left upper quadrant. The pain was associated with jaundice and fever (37.8° C).

Abdominal ultrasound demonstrated transposition of liver and gallbladder to the left upper quadrant, and common bile duct dilated to 13 mm. ERCP was performed and revealed distortion of gastric anatomy with inverted location of greater and lesser curves. The papilla was oriented to the right side at the 3 o'clock position ( Fig. 1). Sphincterotomy was performed, and purulent bile and thick sludge were cleared. Finally, a plain abdominal supine radiograph was taken ( Fig. 2) and showed transposition of gallbladder

and bile ducts to the left side, as proved through the shadow of a coin (**•** Fig. 2, number 1) placed on the abdominal left upper quadrant and the normal location of pacemaker electrodes (**•** Fig. 2, number 2). All of these findings were concordant with SIP.

ERCP in patients with anatomic variants or surgically altered gastrointestinal anatomy presents a challenge to the therapeutic endoscopist [2]. Transposition of the abdominal viscera associated with situs inversus, involves technical changes to the ERCP procedure [3,4]. In our case, the procedure was feasible with the patient in the usual prone position. However, the duodenoscope had to be turned 180° clockwise in the stomach: moreover, a rotating sphincterotome was needed due to the ectopic orientation of the papilla. Despite these anatomical features and technical peculiarities, it was possible to carry out the procedure.

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#### References

- 1 *Claydon M, McLaughlin S.* Gastrointestinal: situs inversus viscerum. J Gastroenterol Hepatol 2002; 17: 1329
- 2 *Cheon YK, Fogel EL.* ERCP topics. Endoscopy 2006; 38: 1092 1097
- 3 Venu RP, Geenen JE, Hogan WJ et al. ERCP and endoscopic sphincterotomy in patients with situs inversus. Gastrointestinal Endosc 1985; 31: 338 – 340
- 4 Fiocca F, Donatelli G, Ceci V et al. ERCP in total situs inversus viscerum. Case Rep Gastroenterol 2008; 2: 116–120

#### Bibliography

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