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Letters to the Editor

Laparoscopic approach to the intrahepatic gallbladder. A case report

Key words: Intrahepatic gallbladder. Anomalies. Laparoscopy. Cholecystectomy. Hepatotomy.

Dear Editor,

Intrahepatic localization of the gallbladder is one of the most frequent ectopic locations. Although in reptiles and marsupials it is the usual location, in the human being it is only intrahepatic during the embryologic development to become extrahepatic during the second month of gestation (1). We present a new approach to this anomaly, which is a surgical challenge for the surgeon. There was not, so far, any description of the laparoscopic approach.

Case report

We present the case of a 53-year-old woman complaining of right upper quadrant pain. Cholelithiasis was diagnosed by abdominal ultrasound reporting no other abnormalities.

We performed a laparoscopic approach in the French position with 4 ports. Since Hartmann's pouch, cystic duct and cystic artery were extrahepatic and visible, Calot's triangle was dissected using the standard. After the exposure of the critical view we performed a hepatotomy (Fig. 1) and carefully dissected the gallbladder bed.

The patient was discharged within 24 hours without any complications.

Discussion

The intrahepatic gallbladder is the one that its entire circumference is surrounded by liver parenchyma (2). Sometimes, as in this case, there is some protrusion of the fundus (Fig. 2). The intrahepatic gallbladder is one of the most frequent heterotopies.

Anomalies of the gallbladder can be related to their shape, number and position.

Ectopia, agenesis, hypoplasia, duplication, luminal septation, and cysts are the most common (1) (Table I).

This development abnormality can be detected easily by ultrasound or TC-scan (3).

Intrahepatic gallbladder is often dysfunctional. Cholelithiasis rate reaches 60 % (2).

In this case, it was not a known condition. If we had detected it in the ultrasound, it would have being appropriate to perform a cholangio-magnetic resonance in order to rule out other anomalies of the biliary tract or we could have performed an intraoperative cholangiography as alternative.

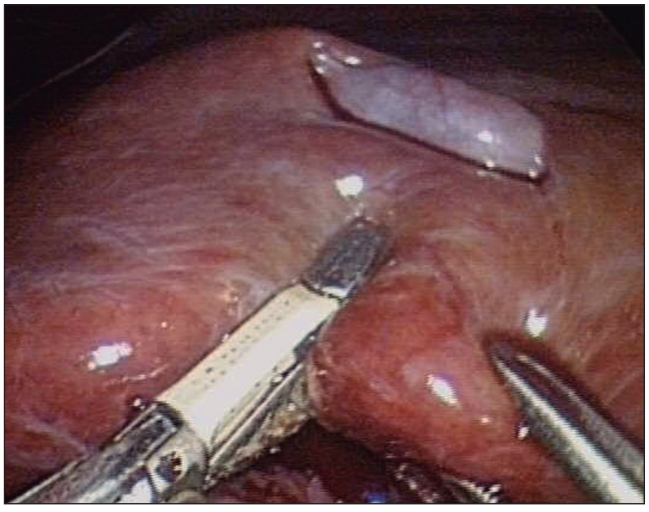

Fig. 1.

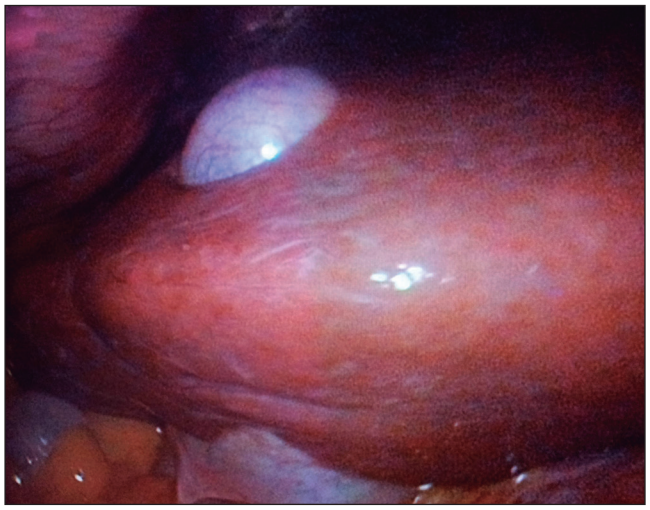

Fig. 2.

In the literature, the treatment described goes from transhepatic drainage (4) to laparotomic cholecystectomy. Nevertheless, there is neither description nor any indication related to the laparoscopic technique. Given current technical advances, we found no contraindication to perform this surgery using this approach.

Laparoscopic cholecystectomy remains the gold standard, it is safe and represents the treatment of choice also in the intrahepatic gallbladder, making it possible for these patients to benefit from the advantages offered by the laparoscopic approach to the gallbladder.

Table I.

Shape	*Number*	*Position*
Phrygian cap	Agenesis	Left-sided gallbladder
Congenital diverticula	Hypoplasia	Falciform ligament location
Septation	Duplication	Abdominal wall location
Cystic malformations	Triplication	Intrahepatic
Multilocular cysts		Floating

Adapted from MacSween's Pathology of the liver (1).

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