An intrahepatic cavoportal collateral pathway due to a liver hydatid cyst obstructing the inferior vena cava

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We present the case of a 47-year-old female with a previous consumption of hashish and cocaine and HIV infection with an undetectable viral load.

She presented with fever, right upper quadrant pain and a three finger hepatomegaly. The analytical results showed 12,800 cells/l, alkaline phosphatase at 251 IU/l, GGT of 178 IU/l and CRP at 156 mg/l.

The abdominal computed tomography (CT) showed a hydatid cyst of 11.5 cm occupying segments VII-VIII that communicated with the biliary tree and compressed 10 cm of the inferior vena cava (IVC) (Fig. 1). In addition, an intrahepatic collateral pathway (ICP) of 3 cm between the accessory right hepatic vein and the right portal vein was observed (Figs. 2 and 3). The Echinococcus serology was positive (1/1,280).

A percutaneous drainage was performed and Streptococcus oralis grew in the culture. The endoscopic retrograde cholangiopancreatography (ERCP) showed cystobiliary communication, cyst material in the biliary tree and a papillary stenosis. The bile duct was cleaned and the papilla dilated. A subtotal cystectomy was performed leaving a small patch of the cyst attached to the IVC. The patient was discharged on postoperative day 4 without complications.

DISCUSSION

When there is a chronic obstruction of the IVC, this leads to collateral formation between the IVC and a tributary vein of the portal system (1).

These shunts can be extrahepatic or, more infrequently, intrahepatic (1,2). In our case, we did not know if this ICP was congenital and had grown as a consequence of the compression in the IVC, or if it developed de novo.

The liver sometimes has accessory right hepatic veins called middle right or inferior right vein. They are present in 15%-47% of cases and only 3-12% have a wider caliber than the right hepatic vein (3).

Fig. 1. Computed tomography (CT) showing an intrahepatic collateral pathway (ICP) between the accessory right hepatic vein and the right portal vein (RPV: Right portal vein; C: Cyst; ICP: Intrahepatic collateral pathway; IVC: Inferior vena cava).

Fig. 2. Surgical field (C: Cyst; AHV: Accessory right hepatic vein; IVC: Inferior vena cava).

Fig. 3. Surgical field (S. VI: Segment VI; AHV: Accessory right hepatic vein; IVC: Inferior vena cava).

REFERENCES