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Hepatic hydatidosis that debuts with a direct rupture to the pleural cavity

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Dear Editor,

We present the case of a patient with pain in the right hypochondrium, dyspnea, deterioration of his general condition and a positive anti-Echinococcus antibodies test. Ultrasound and thoraco-abdominal computed tomography (CT) demonstrated a complex hepatic cystic lesion with a transdiaphragmatic fistulous tract trajectory, directed to the pleural space. The lesion was compatible with a complicated hydatid cyst with direct rupture to the pleural cavity. Treatment with albendazole prior to surgery was started.

Hydatidosis, zoonosis produced by cestodos (Echinococcus granulosus) predominantly affects the liver (1) and according to the natural evolution of the lesions, five ultrasound stages are established (World Health Organization [WHO], 2003). From a single cyst (stage 0) to a solid and calcified cyst (stage 4-5), in resolution phase or inactive (1,2). Although it is usually an asymptomatic casual finding (3), it can debut with intra/extra hepatic complications, such as obstructive jaundice (1), super infection, rupture and portal or suprahepatic thrombosis (1).
The rupture can be (4,5) contained or communicate with the bile duct. This allows the passage of the hydatid content to the gastrointestinal tract, peritoneal or thoracic cavity, either by pleural spread without affecting the bronchial tree or tracheobronchial spread. The diaphragm and/or the thoracic cavity may be affected by the hydatid content in 0.16 to 16 % of cases. This contamination occurs preferentially through the right posterior segments or the hepatic nude area, which is more vulnerable due to a lack of peritoneal coating (5).

The special clarity of the images in this case allows the identification of the hydatid cyst with a transdiaphragmatic rupture through a hepatopleural fistula path and the consequent pleural effusion, both via CT and ultrasound images.

References
Fig. 1. A. Ultrasound image showing a complex cyst with heterogeneous content, with posterior acoustic reinforcement, located in hepatic segment 6 of 4 x 3.9 cm (AP x T). The communication path is identified with the pleural cavity. B. Chest CT with iv contrast; coronal reconstruction where a cystic-pleural communication path and right pleural effusion-empyema can be observed. After thoracentesis, gas bubbles often appear, as seen on the CT images. C. CT axial image of the abdomen with contrast showing the irregularly walled hydatid cyst with some parietal calcification.