## **LETTERS TO THE EDITOR** EDİTÖRE MEKTUP **Thoracobiliary fistula due to hydatid cyst**

Hidatik kiste bağlı torakobiliyer fistül

## To the Editor

Thoracobiliary fistula (TBF) is a rare entity that can develop during the course of hydatid disease. TBF frequently originates from a hydatid cyst and liver abscess; nonetheless, trauma and cholelithiasis occasionally may cause fistula formation (1-4).

A 54-year-old male patient with 17 months history of percutaneous drainage of type-II hydatid cyst located in the right lobe of the liver was admitted with fever, right hypochondrial pain, loss of appetite, malaise, weight loss, jaundice and dyspnea with green-yellow-colored sputum discharge. His WBC was 10,200/mm<sup>3</sup>, direct/indirect bilirubin 5.4/1.5 mg/dl, and SGOT/SGPT: 70/80 U/dl. Breathing sounds were hardly auscultated. Pulmonary radiography revealed an elevation in the right diaphragm and ultrasonography revealed a regular round-contoured heterogeneous mass of 112x107 mm in the right lobe of the liver. Computerized tomography (CT) revealed pleural thickening on the basal segments of the diaphragmatic site of the right inferior pulmonary lobe with minimal infiltrative density enhancement and a cystic lesion of 110x110x100 mm in the dome of the right liver lobe.

Endoscopic retrograde cholangiopancreatography (ERCP) revealed a fistula tract along the hydatid cyst and right thorax (Figure 1). In the operation, a 10 cm in diameter cystic mass and intensive intra-abdominal adhesions between the right lobe of the liver and diaphragma were noted. Cystotomy and drainage were performed. A 0.5 cm in diameter broncho-biliary fistula tract was noted on the dome of the cyst where the cyst connected to the right diaphragma. Additionally it was noted that a biliary duct was directly opening to the bottom of the cystic cavity. The fistula tract connecting the

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Figure 1. ERCP revealed a fistula tract along with the hydatid cyst and right thorax

cyst pouch to the right thoracic cavity and the bile duct opening the cyst were sutured and the defect in the diaphragm was closed.

Intrahepatic, subdiaphragmatic or intrathoracic abscess may develop as a result of TBF (1, 2, 5). Obstruction of the common bile duct due to germinative membranes of the cyst content leads to an increase in the bile ducts and hydatid cyst pouch. These different factors, combined together, make the diaphragm vulnerable to fistula (2, 5).

Clinical manifestations of TBF are malaise, fever, pain, jaundice, hepatomegaly, a respiratory sound decrease in the lung where the fistula presents, along with sputum discharge with bile (2, 5). Pneumonia, bronchopneumonia, empyema, lung abscess and sepsis are prominent complications of the disease (3-5). If biliary obstruction is present, ERCP, sphincterotomy and nasobiliary drainage are beneficial before the operation (6, 7).

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