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Cholethorax

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✔ We present a 22-year-old patient with cholexhorax caused by the liver echinococcosis. Our represented case was successfully treated surgically.

Key Words: Hepatopulmonary fistula, biliopleural fistula, cholethorax, echinococcosis, bilier ductal fistula.

INTRODUCTION

Cholexhorax is the accumulation of bile secretion in pleural space. This term however, is rarely used in medicine. Abscess formation and proteolytic enzymes produced in the echinococcosis cysts causes destruction of the near tissues in the liver, lung and elsewhere. Transdiaphragmatic biliopleural fistula caused by hepatic hydatidosis is an uncommon clinical state especially in developed countries. Fistula cannot close spontaneously and absolutely require a surgical approach[1,2]. Our represented case successfully treated surgically is one of the rare cases in the literature.

CASE REPORT

A 22-year-old woman admitted to our clinic with complaints such as cough, fever and losts of weight. On physical examination, there was dulness on percussion, a tuber sulf with auscultation at the field of the right side thorax. Thoracic x-ray showed pleural effusion and sub diaphragmatic air-fluid level. We performed thorasentesis and aspirated a yellow-green material mimicking infected. When it was analysed, it was shown that the bile secretion was infective. Computed tomography proved hepatopleural fistula caused by multiple liver echinococcosis cysts (Fig. 1). She underwent right posterolateral thoracotomy from the 6th intercostal space. The lower and middle lobes of right lung were atelectatic. The diaphragm was perforated 3-cm-diagonal at central. Multiple hydatid cysts (approximately 100 cysts) were picked up in the cystic cavern of liver transdiaphragmatically. A pezzer drain was placed which arised out of the cavity and connected a drainage bag. The diaphragm was repaired by the polydioxanone suture. When the restrictive membrane on the visceral pleura was removed the lung expansed. Postoperative course was uneventful. The tube was removed by the time biliary drainage stopped at 25th day of operation.

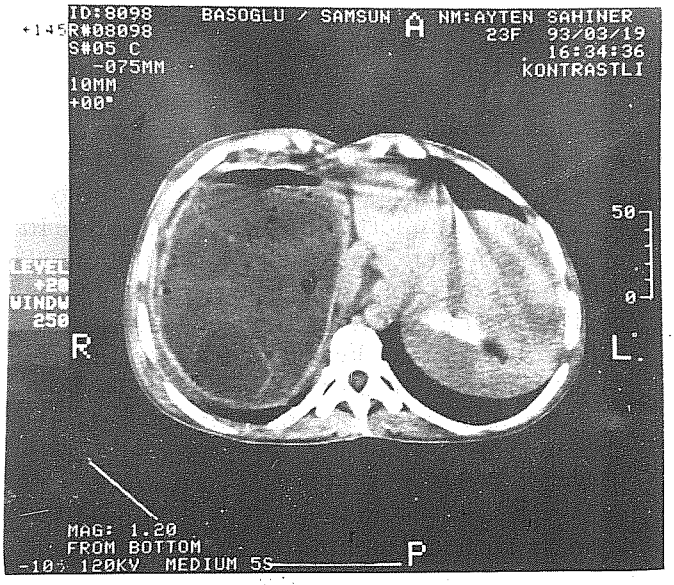

Figure-1: Hepatopleural fistula by causing multiple liver echinococcosis cysts seen by means of thoracoabdominal computed tomography.

DISCUSSION

Cholexhorax is a term rarely used in pulmonary medicine. Thusgaard et all., used the term to describe an accumulation of bile secretion in pleural space[3]. It has been shown that etiologic factors are usually iatrogenic perforation of the bile ducts during percutenous catheterisation or drainage; liver hydatidosis close to diaphragm and transdiaphragmatic penetrating injury to liver in the literature[1,3-5]. Biliobronchial fistula must be suspected if the patient coughs up chocolate-coloured sputum containing bile (bilioptysis). Thorasentesis is a diagnostic procedure. The liquid of pleural aspiration consists of bile. Hepatopulmonary communication can occasionally close spontaneously, but usually requires surgical therapy. The usual treatment has been a combined thoracoabdominal approach with correction of the fistulous tract or an abdominal approach to correct the causative bile duct obstruction[1,2]. However, both endoscopic and percutaneous therapy of the biliary ductal system was described as forms of treatment of the cholexhorax, it is an indication for surgical therapy if there is a biliobronchial fistula and/or hydatidosis solely[1]. When the operation is performed, the opening through the diaphragm should be closed and the hepatic fistula should be eradicated by late absorbable polydioxanone suture or non absorbable one. We preferred the polydioxanone suture because of prolonged wound support in the bilary tract[7]. In order to prevent residual accumulation of bile, a pezzer tube should be placed into the cavity. In the patients, the perforation into the bronchus may be followed by secondary infection which requires antibiotic therapy. We administered two-combination of ceftriaxon (Rocephine) 1x1 gr and ornidasole (Biteral) 2x500 mg for 12 days postoperatively. Residual echinococcal cyst should be treated with antihelmintic drugs. We gave albendazole (Valbazen) 3x400 mg/day. We conclude that cholexhorax developed as a result of hepatic hydatidosis, is an indication for thoracotomy. In addition, Antihelmintic drugs effective on echinococcosis should be used for six months.

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