BRIEF COMMUNICATIONS

SPLENOTHORACIC FISTULA COMPLICATING PRIMARY SPLENIC HYDATIDOSIS

David Alba, MD,^a Salvador Díaz Lobato, MD,^b Teresa García-Quintero, MD,^c and Pilar Arribas, MD,^c Madrid, Spain

Hydatid disease (HD), which is caused by infestation with the parasite *Echinococcus granulosus*, may occur in almost any organ of the host. The spleen is the third most frequently affected organ (after liver and intrathoracic locations), accounting for 1.7% to 4% of all cases of HD.¹

Splenic hydatid cysts may rupture intraabdominally. In contrast, intrathoracic rupture is extremely rare.² We present the case of a patient with primary splenic HD complicated with pleuropulmonary extension through a splenothoracic fistula. To our knowledge, this combination has not been previously reported.

A 46-year-old woman was admitted to the hospital because of pain in the left side of her chest and a mild fever of 1 month's duration. The patient reported a history of contact with dogs. She had been well until 6 months before admission, when she had a bout of left lumbar pain that improved spontaneously. One month before her admission, fever, pain in the left side of her chest, and cough developed. Left lower lobe pneumonia was diagnosed, and the patient took oral erythromycin without clinical improvement.

At admission, results of physical examination were normal except for signs of left pleural effusion. The patient's temperature was 37.6° C. Laboratory data included leukocyte count, 10,400 cells/mm³ (80% neutrophils, 3% eosinophils); sedimentation rate, 92 mm/hr, and hematocrit, 34.7%. A chest roentgenogram disclosed a left lower lobe consolidation and small left pleural effusion. Later radiographs showed progression of the pleural effusion. Thoracentesis showed slight bloody pleural fluid with hydatid membranes and scolices. The *Echinococcus* indirect hemagglutination titer was 1/2560, and latex fixation was 1/64. Ultrasonographic examination of the abdomen revealed an enlarged spleen with a large multilocular cyst and a unilocular cyst. A computed tomographic scan of the abdomen confirmed the ultrasonographic findings (Fig. 1). A computed tomographic scan of the thorax (Fig. 2) showed a left pleural effusion. At the level of the left

Fig. 1. Abdominal computed tomographic scan reveals splenomegaly with a large multilocular hydatid cyst and a unilocular hydatid cyst in the spleen.

Fig. 2. Computed tomographic scan of lungs shows a multilocular cyst at the level of left lower portion of the lungs. This lesion may correspond to a diaphragmatic cyst with lung and/or subdiaphragmatic involvement.

From the Departments of Internal Medicine,^a Respiratory Medicine,^b and Family and Community Medicine,^c Hospital La Paz, Paseo de la Castellana, Madrid, Spain.

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lower lobe, a multilocular structure was observed; this suggested a diaphragmatic cyst with lung and/or subdiaphragmatic involvement.

A left seventh interspace posterolateral thoracotomy was made. The left hemidiaphragm was elevated, and adhesions between the left lower lobe and the diaphragm were noted. A cavity within the left lower lobe was opened and found to contain a hydatid cyst with

daughter cysts. Atypical segmentectomy of the left lower lobe was performed with the help of GIA stapler (Auto Suture Company Division, United States Surgical Corporation, Norwalk, Conn.). At the level of the diaphragmatic dome, the pleura was decorticated. There was a splenopleural fistula, which was enlarged. Splenic cysts were aspirated transdiaphragmatically, removing 1 L of fluid, and thereafter the cavities were washed with hypertonic saline solution. External marsupialization over two left-sided transabdominal tubes was performed, and two left-sided chest drainage tubes were placed.

Pathologic examination found the pleural fluid and the lung specimen to contain daughter cysts and scolices. Postoperative recovery was uneventful, and the tubes were removed when they no longer drained. Mebendazole (500 mg every 8 hours) was administered for a month. There has been no recurrence for more than a year.

Splenic HD may be primary (more frequent³) or secondary, related to ruptured intraabdominal cysts. In primary infestation, the parasite has passed through hepatic and pulmonary filters.

Splenothoracic hydatidosis is a rare occurrence, usually occurring as a result of multivisceral intraabdominal hydatidosis.³ Recently, von Sinner and colleagues⁴ described a man with secondary intrathoracic hydatidosis. Previously, the patient had had diffuse intraabdominal HD (involving the spleen). Unlike that patient, our patient had solitary splenic hydatidosis and had shown no clinical evidence of disease.

Splenic hydatid cysts may produce serious complications, with rare reports of rupture into the pleura² and

into the bronchial system.² Because the hydatid fluid is highly antigenic, rupture into the pleural cavity results in chest pain, cough, implantation of the cyst in the cavity, and sometimes anaphylactic shock.

In our case, *Echinococcus* affected the thorax by extension of splenic HD across the diaphragm. Most likely, the growing cyst had previously eroded the pleura, resulting in the formation of a splenopleural fistula and later parenchymal involvement. There was a pleural effusion as well as multiple pleural hydatidosis caused by the development of the fistula.

Surgery remains the treatment of choice for HD. In associated hydatidosis of the thorax and abdomen, the operation must be carried out with thoracoabdominal access. When there are gross adhesions between the diaphragm and the liver (or spleen), however, it may be wise to primarily address surgical treatment of the chest lesion⁵ with abdominal cyst evacuation.

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HEMOPTYSIS CAUSED BY AN ENDOBRONCHIAL LIPOMA

Antonio Piñero, MD, Alberto Giménez, MD, Fernando G. Lax, MD, and Pascual Parrilla, Murcia, Spain

Benign tumors of the lung and endobronchial tree are uncommon processes that, because of their location, need to be differentiated from malignant tumors. When these tumors are endobronchial, bronchoscopy is an excellent method of diagnosis. We present a case in which an endobronchial lipoma in a patient with symptoms of coughing and hemoptysis was removed by rigid bronchoscopy.

A 68-year-old male patient who had no family medical

history of interest, smoked approximately 20 cigarettes daily, and had a peptic ulcer was admitted to our hospital with a cough of several weeks' duration, accompanied by expectoration and episodes of hemoptysis. No other symptoms were reported. Neither general examination nor cardiopulmonary auscultation revealed pathologic findings.

Simple chest radiography disclosed condensation and atelectasis of the middle right lobe. The chest computed tomographic scan showed no mediastinal adenopathies. At bronchoscopy, a smooth, round, polypoid tumor, which was freely movable, apparently benign, and impossible to sample for biopsy, was seen within the lumen of the middle right lobe bronchus. Cytologic study from brushing revealed no neoplastic cells.

We subsequently performed a rigid bronchoscopy with the patient under general anesthesia. We took an

From the Department of General Surgery, Virgen de la Arrixaca, University Hospital, University of Murcia, Murcia, Spain.

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