

Abdominal pain and fullness in young patient

Aziz Bulut¹, Fatih Karaahmet², Erdem Sari¹, Gurkan Guneri¹

Department of (1) Surgery and (2) Gastroenterology, Bingol State Hospital, Bingol, Turkey.

To the editor,

A 25-year-old man presented with abdominal pain and fullness within four months. On physical examination he was afebrile, with a blood pressure of 130/75 mm/Hg, a pulse of 74 beats per minute. The abdominal physical examination revealed soft, distended abdomen with left upper abdominal palpable mass. Blood tests showed the white-cell count was 11.400 per cubic millimeter (with normal eosinophils range), the hemoglobin level 16.2 g/dl (reference range : 13.6-17.2 g/dl), the platelet count 437000 per cubic millimeter, erythrocyte sedimentation 38 mm/h and C-reactive protein 45 mg/L (reference range : 1.0-3.0 mg/L). Hepatic and renal function tests were all normal. Testing was negative for hepatitis B, hepatitis C and human immunodeficiency virus (on polymerase-chain-reaction assay). An ultrasonographic examination of the abdomen showed the vertical size of liver was 12 cm, mild increase in liver echo density with no gall stones. Ultrasonography also revealed a giant well defined, non-multilocular cystic lesion of the spleen with a size of 165 × 110 mm. Indirect hemagglutination test for hydatid cysts was positive in the titer 1:256.

Large homogeneous splenic cystic lesion measuring 160 × 110 mm, with no septa was detected by abdominal computed tomography (CT) scan (Fig. 1A). Surgical exploration was performed after a four day albendazole (15 mg/kg/day) treatment, with a midline abdominal incision and revealed non-lobule splenic giant cyst, protruded from the splenic parenchyma with thin rim (Fig. 1B). Further, vaccination was performed for *Pneumococcus*, *H. influenzae* and *Meningococcus*, and albendazole treatment was continued for one month. Histopathological examination confirmed the diagnosis of splenic hydatid cyst with classic laminated cyst wall which is consistent Echinococcus granulosus infection. The patient was discharged 5 days after the hospitalization and was doing well at follow-up six month.

E. granulosus causes the most frequently encountered form which is cystic echinococcosis. It is the most important ongoing health problem in sheep- and cattle-raising areas of the world. *E. granulosus* is frequently localized in liver (70%) and lung (30%), and other rare organs including spleen, brain, heart, and kidneys. Splenic involvement of hydatid cyst is a rare condition with an incidence of 0.5-4% (1,2). Also, it is difficult to distinguish it from

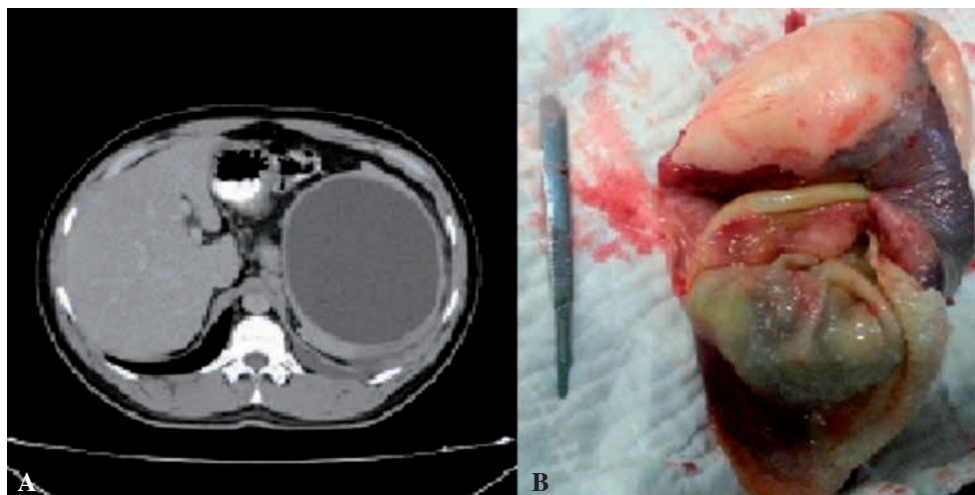


Fig. 1. — Large homogeneous splenic cystic lesion measuring 160 × 110 mm, with no septa was detected by abdominal computed tomography scan (A). Non-lobule splenic giant cyst, protrude from the splenic parenchyma with thin rim (B).

Correspondence to : Fatih Karaahmet, M.D., Department of Gastroenterology, Bingol State Hospital, Bingol, Turkey. E-mail : fatih_ares@yahoo.com.tr

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other splenic cystic lesions (such as a pseudocyst, splenic abscess, epidermoid cyst, or a cystic neoplasm of the spleen) by sonographic and CT findings as they have similar appearances. ELISA, immunoelectrophoresis, or indirect hemagglutination test can lead to successful diagnosis of splenic hydatid in 90% of the cases (3).

The tension in the cyst wall and splenic parenchymal atrophy related to cystic pressure may lead to spontaneous rupture and anaphylactic shock, which are well known dangerous complications of splenic hydatid cyst (4). For this reason, early diagnosis and treatment is an essential step in overcoming the disease.

The treatment methods involve medical, percutaneous aspiration, injection, and reaspiration (PAIR) and surgery. According to previous studies, total splenectomy in larger splenic hydatid cysts with preoperative albendazole (daily dosage of 15 mg/kg/day) and praziquantel treatment (at least 4 days before surgery and continue for 1-6 months) is more favorable in reducing the chance of preoperative anaphylactic shock and the postoperative recurrence rate (5,6).

In conclusion, clinicians should consider hydatid cyst as a potential diagnosis, even in non endemic areas. Furthermore, even if medical and PAIR treatments have a partially promising effect on splenic hydatid cysts, combination of chemotherapy and surgery is still the current approach for the treatment of the disease.

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