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Images in Congenital Cardiac Disease

A case of intracardiac echinococcosis

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Abstract We describe a case of multisystemic cystic echinococcosis exhibiting intracardiac involvement. A lesion inside the lateral wall of the left ventricle induced negative T waves on leads V5 and V6.

Keywords: Cardiac involvement; cystic echinococcosis; negative T waves

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Cystic echinococcosis rarely presents with cardiac involvement, with a prevalence of only 0.5–2% of all patients.[1] Cardiac impairment, such as rhythm disorders, may occur in these patients. A previously healthy 5-year-old boy was admitted with cough and intermittent chest pain during the previous month. Tachypnea (40/min) and hepatomegaly were determined during physical examination. Laboratory results revealed leucocytes 13,830/mm^3, consisting of 38% neutrophils, 12% lymphocytes, 8% monocytes, and 42% eosinophils, C-reactive protein 0.6 (0–5) mg/dl, erythrocyte sedimentation rate 23 mm/hour, and immunoglobulin E at 674 (<50) mg/dl. Chest X-ray revealed multiple opacities in the left hemithorax (Fig 1a). Electrocardiography demonstrated negative T waves on V5, V6, and inferior leads (DII, DIII, and aVF) (Fig 1b). Echocardiography revealed a single, well-circumscribed cyst, 23 × 29 mm in diameter, inside the lateral wall of the left ventricle (Fig 1c and d and video 1). CT of the chest revealed multiple cysts, with the largest measuring 5.5 cm in diameter on the left lung and a cyst measuring 4.5 cm inside the mediastinum (Fig 1e). CT of the brain was normal, whereas abdominal CT revealed multiple cysts, with the largest measuring 3 cm in size on the liver (Fig 1f). Hydatid cyst serology was 1/640. The patient was started on peroral albendazole (15 mg/kg/day). After Holter monitoring, he was referred to a tertiary hospital specialising in cardiovascular surgery for simultaneous heart, bilateral-lung, and liver-cyst hydatid surgery in a single session. After cardiac and pulmonary lesions were removed, normal cardiac and ECG findings without any arrhythmia were observed on outpatient controls. Cystic echinococcosis is a multisystemic infection. Systemic workup including investigation of cardiac involvement is mandatory to prevent fatal complications.

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Conflicts of Interest

None.

Reference

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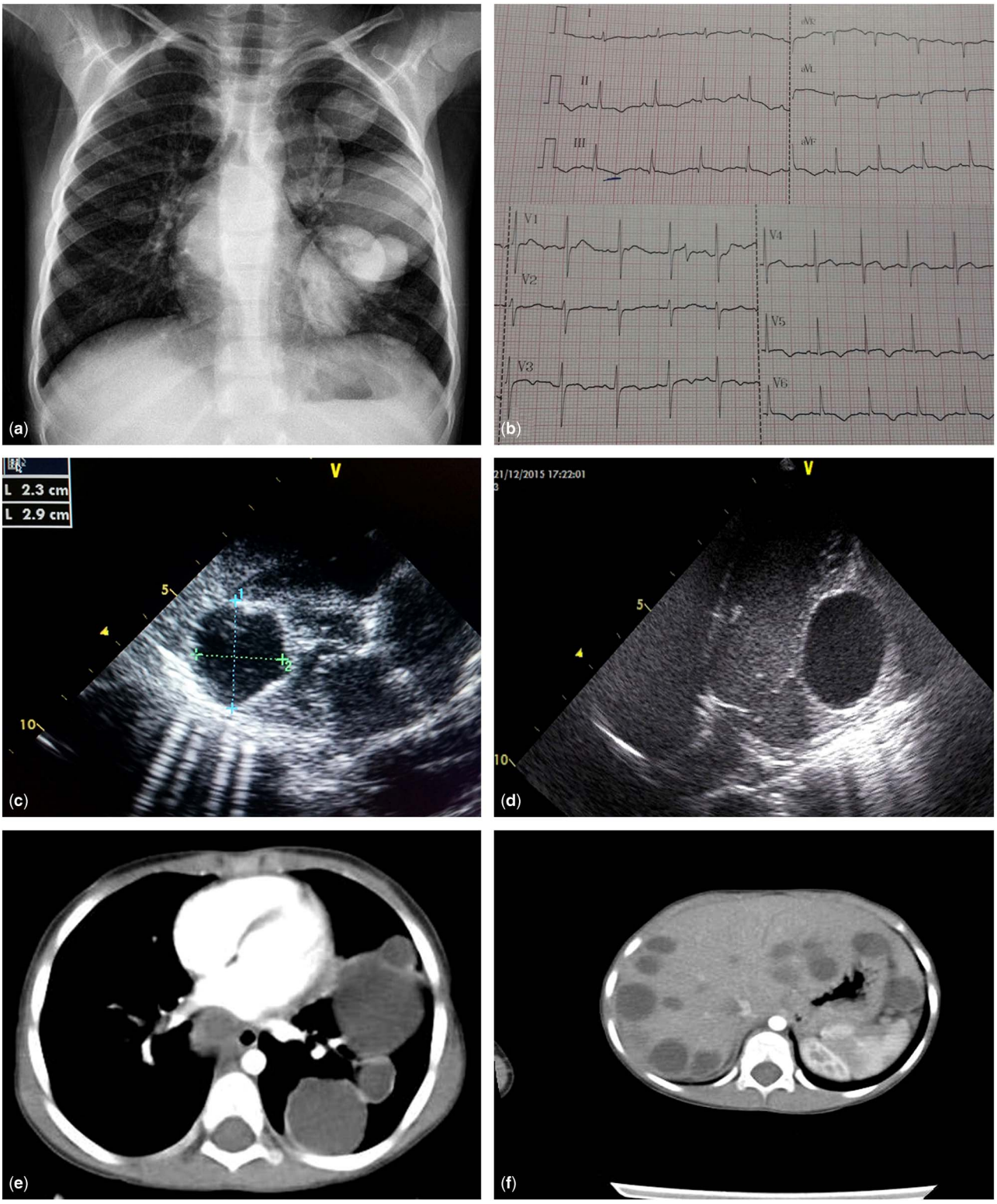

Figure 1.
*(**a**) Posteroanterior chest X-ray revealed multiple opacities on the left hemithorax. (**b**). Electrocardiography showed negative T waves on V5, V6, and inferior leads (DII, DIII, and aVF) (**c** and (**d**). Modified subcostal (Fig 1c) and apical (Fig 1d) four-chamber images on the echocardiograph showed a well-bordered, encapsulated, hypoechoic lesion measuring 23 × 29 mm in diameter. The lesion is located far from the mitral inflow and left ventricular outflow tracts (**e**). Chest CT showed multiple cysts, of which the largest was 5.5 cm, on the left lung (**f**). Abdominal CT revealed multiple cysts, of which the largest was 3 cm, on the liver.*

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