

CARDIAC HYDATID CYST SIMULATING CORONARY ISCHEMIA

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SUMMARY: Hydatidosis is predominantly a hepatic-pulmonary disease, with less than 2 percent cardiac involvement. A large myocardial Echinococcus cyst may compress the surrounding heart muscle and cause ischemia.

A patient with precordial pain and ST-T changes on the ECG was diagnosed as having cardiac Echinococcus. She has been operated and the cyst removed successfully.

Key Words. Hydatid Cyst.

INTRODUCTION

Cardiac localizations in hydatid disease are uncommon and often latent. Its incidence even in countries where it is endemic, is less than 2 percent of the total incidence of echinococcosis (1,2). Since the first case described by Deve (1901) until 1958, search of the literature reveals approximately 300 reported cases of echinococcus disease of the heart (3). This report deals with a case observed at our hospital and diagnosed by angiography, computed tomography (CT), and two-dimensional echocardiography. The patient was successfully operated upon.

CASE REPORT

H.S., an 18 year-old woman, was admitted to the hospital because of precordial pain, dyspnea on exertion, palpitation during rest for two months. Previously she had apparently been asymptomatic.

On physical examination the blood pressure was 110/70 mmHg, pulse rate was 84/min. She appeared underweight however there was no peripheral edema or

rattles on lung fields. Liver and spleen were within normal limits. The heart was enlarged to the left with weak apical pulsations; there were no murmurs.

Left sided cardiac enlargement and weak pulsations, and round filling defect of anteroapical segment of left ventricle were observed on ventricular angiography (Figure 1.). Two-dimensional echocardiography showed a intramyocardial echo lucent mass with smooth calcified contours in the apex of left ventricle (4-5 cm in diameter).

Computed tomography revealed a well circumscribed 3,9 x 4 cm. cyst with a relatively thin wall located at the apical region of the left ventricle. The ECG revealed sinus rhythm with negative T waves on leads D1-2 and VI-6 (Figure 2).

At surgery, large cyst (4x4 cm) was removed from myocardium of left ventricular apex, using cardiopulmonary bypass. The surgical specimen was composed of germinative membrane of cyst (Figure 3). There was no relation between cystic and left ventricular cavity. After resection of the fibrotic portion of the left ventricle was closed with aneurysm repair technique using teflon strips. The heart started to pump spontaneously with good ejection.

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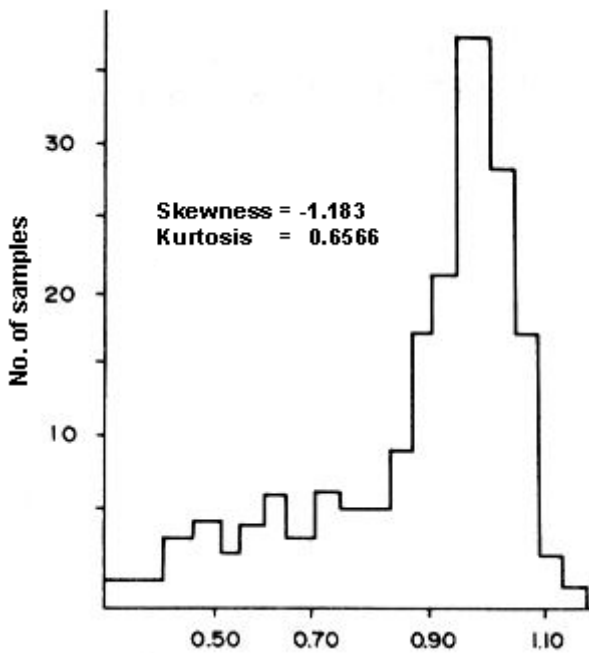


Figure 1: Round filling defect of left ventricle on ventricular angiography.

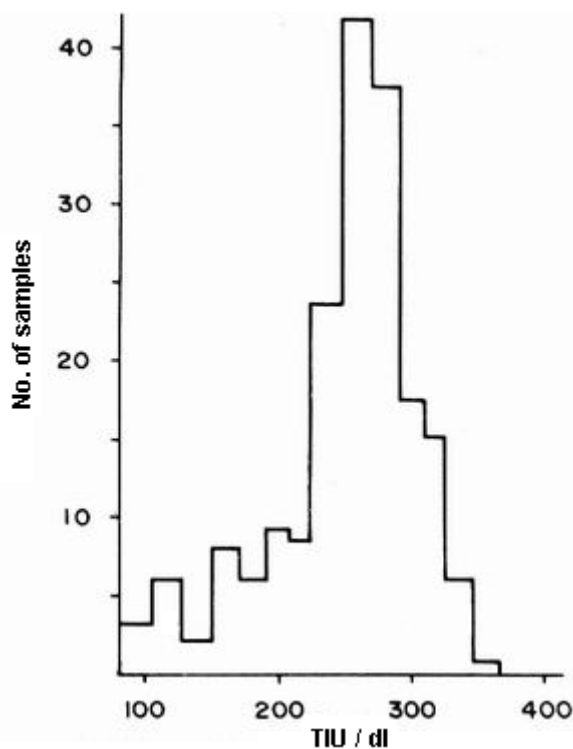


Figure 2: The ECG revealed sinus rhythm, T negativity on Leads D 1-2 and VI-6.

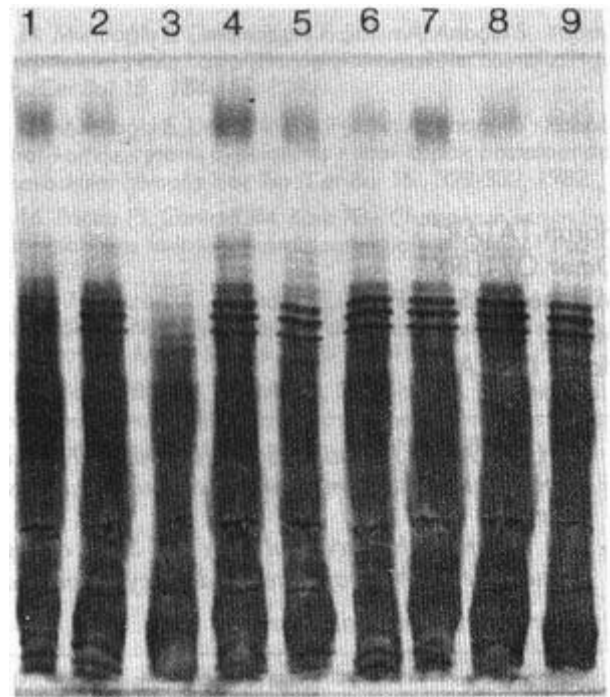


Figure 3: At surgery, 4x4 cm. a large cyst was removed from myocardium of left ventricular apex.

The patient made an uneventful recovery and was discharged from hospital 20 days later. At present chest x-ray shows a normal heart shadow.

DISCUSSION

The great majority of patients with cardiac echinococcosis are asymptomatic. However Heyat *et al.* (4), in reviewing 82 patients, found precordial pain in 47 percent of them. According to Murphy *et al.* (5), mild and recurrent precordial pain is the most common complaint, as happened to be the presenting symptom in our case.

Sudden death is considered to be due to arrhythmias, or rupture of the cyst with anaphylactic shock or cardiac tamponade. The impressive incidence of the catastrophic complications including sudden death in cardiac echinococcosis emphasizes the need for consideration of the possibility in differential diagnosis, and early surgical intervention. It is important to reiterate that the coronary arteries are usually described as displaced in an "Umbrella-like" fashion (6) in these cases. According to the literature; the clinical, angiographic and surgical findings in these cases show that the cyst can involve cardiac structures as it grows, through as process of inflammatory reaction and fibrosis (7) which can obliterate the arteries and produce a typical picture of coronary insufficiency.

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