A RETROSTERNALLY LOCATED RELAPSE CASE OF MULTIPLE INTRAPERICARDIAL HYDATID CYSTS

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We present herein a case of multiple pericardial hydatid cysts who has developed a retrosternally located relapsed hydatid cyst in the third year of the follow-up after the first operation. On both operations cardiopulmonary bypass was not necessary. The pericardium and retrosternal region are very rarely seen locations of hydatid cysts. In this report, the importance of avoiding spillage and adequate sterilization of cavities are emphasized.

Key words: Hydatid cyst, retrosternal, pericardial, relapse.

Hydatid disease in human was first described by Hippocrates and Galen (1). Long and Vara Lopez made the first attempts for the surgical treatment of cardiac hydatid disease (2). Cardiac hydatid cysts are very rarely reported compared to liver, lung and brain cysts which are the most frequent.

CASE REPORT

A 46-year-old male was admitted to the hospital with the complaint of palpitation. His cardiologic examination and electrocardiogram did not explain the complaint. On his chest x-ray, an enlarged cardiac silhouette was observed and computed tomography was required. Tomographic examination revealed a multilobular cystic mass located between the pericardium and right ventricular free wall (Figure 1). The patient was operated on with the diagnosis of pericardial hydatid cyst. Cysts were removed without performing cardiopulmonary bypass. The patient was discharged on the 7th postoperative day without any complication.

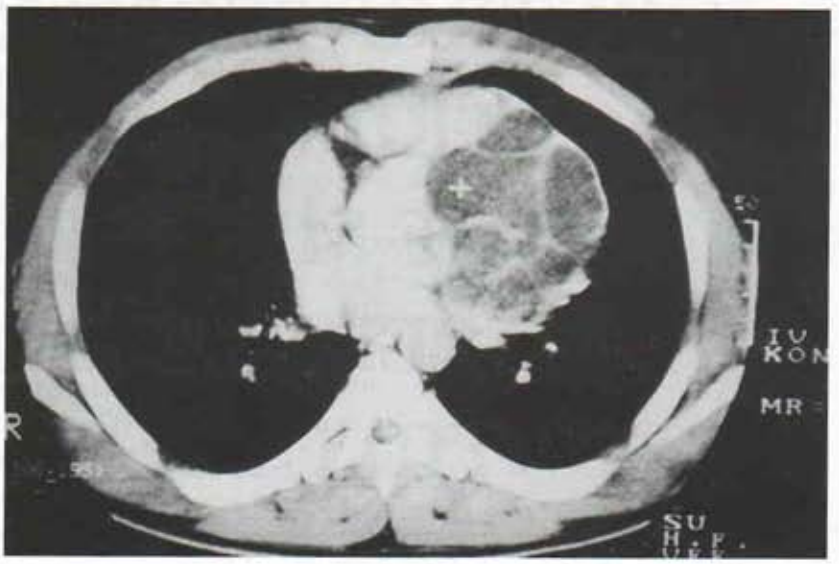

Figure 1. CT view of pericardial hydatid cysts.

On the postoperative course, the patient was observed in every six months. Three years after the first operation, he was admitted again with the complaint of chest pain. No abnormal finding was found on physical examination. On his computed tomography, a retrosternal mass was seen (Figure 2). The cystic mass was removed by the second operation. The patient's brief was reexamined and discussed in order to find out if something was overlooked in the first operation. A radiological image suspected to be a retrosternal cyst was found, and the case was thought to be a relapse of pericardial hydatid disease.

DISCUSSION

Cardiac hydatid cysts are only 0.5 to 2% of all hydatid cyst cases. Myocardium is the most frequent location of cardiac hydatid cysts due to the transmission of the helminth within the coronary circulation. Hydatid cysts that arise in the pericardial cavity and attached to the heart are exceedingly rare as well as retrosternally located ones. It has been reported that myocardial cysts pass into the pericardial cavity and cause the formation of secondary pericardial cysts (2).

Clinical findings and symptoms are usually nonspecific for cardiac hydatid cysts and they

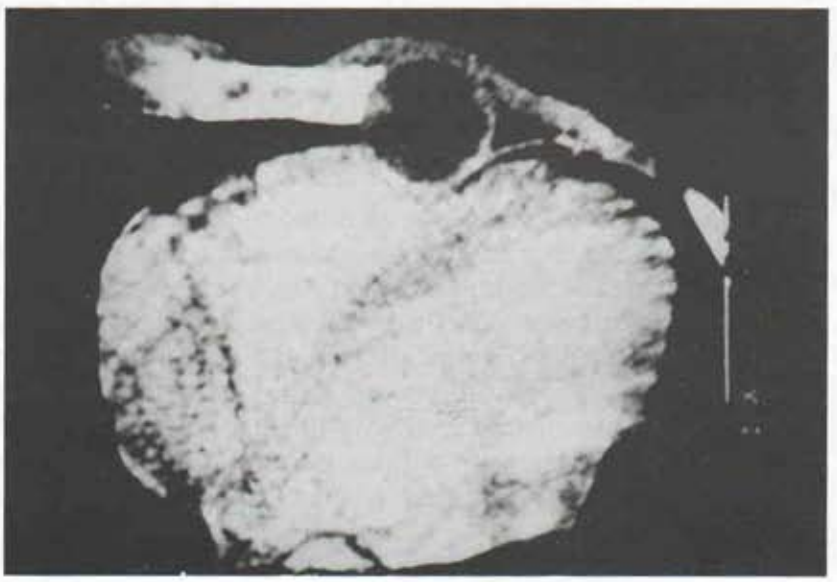

Figure 2. A retrosternal cystic mass three years after the first operation.

depend on the location and growth of the parasite. Because of the long latency period of the parasite in the myocardium the diagnosis is difficult (3). Most frequently encountered symptoms are palpitation, dyspnea and angina pectoris. According to the localization of the cyst, ischemic changes, conduction anomalies, valvular dysfunction, peripheral and cerebral embolism may be present.

Standard ECG can reveal the presence of Q waves and negative T waves that suggest myocardial necrosis. Two-dimensional echocardiography is the most preferable and useful non-invasive method for diagnosis (4). Computed tomography, magnetic resonance imaging and hemagglutination tests can be used in diagnosis (5).

Retrosternal region is an extremely rare and unusual location for hydatid cysts. Computerized tomography provides the best diagnosis by giving additional information about the involvement of the adjacent structures (6).

Surgery is the preferred therapy and sternotomy is the preferred approach for the treatment of cardiac hydatid cysts. To avoid spillage of hydatid cyst, the cystic cavity must be sterilized with glycerine or 10-15% saline hypertonic solution after the aspiration of the cystic content and removal of the germinative membrane (1). In myocardial cysts, the cystic cavity can be quilted with a pericardial flap upon it (2). The use of imidazoles (mebendazole, albendazole) in the postoperative period has been suggested (7).

In conclusion, adequate sterilization of the cystic cavity should be performed intraoperatively and postoperative adjunctive medical therapy should be used to avoid any relapse.

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