
PERICARDIAL LIPOMA

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Intracardiac lipomas that consist of nature fat cells with fibrous and myxoid tissues are regarded as rather rare lesions. The diagnosis may frequently be established during surgical intervention or at autopsy.

The patient presented is a 23 year old male who had had no complaints and the lesion had been incidentally detected on the direct x-ray examination which had revealed an enlarged heart shadow. His physical examination revealed no abnormality except displacement of the heart to the right and sinus tachycardia.

A solid mass derived from the pericardium was observed on computerized tomography (CT) scans and echocardiography. On CT scans the mass exhibited a density which might be indicative of a lipoma. The patient was operated upon and the mass which was encapsulated and 19x17x10 cm size was removed. Histopathological examination revealed lipoma.

Key words: *Pericardial lipoma, computerized tomography, echocardiography.*

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Cardiac lipomas are rather rare lesions of benign nature. We have been able to find 57 cases reported in the medical literature. 25% of such lesions are localized in subepicardium¹ and they may occasionally (have the weigh of) as much as 2,5 kg². The ones with subendocardial and intramyocardial localizations are frequently smaller³. Valvular localization of such lesions is extremely rare. The real lipomas are encapsulated masses with macroscopic appearance of mature fat cells together with fibrous and mixed tissues of various degrees. They may also present themselves as lipomatous hipertrophy of the atrial septum and diffuse fatty infiltration of the myocardium, nevertheless these forms rare not considered as real neoplasms^{4,5}.

Most of the cardiac lipomas reported were found at autopsy. The first successful removal of epicardial lipoma was accomplished in 1952⁶, and of another are with intracavitary localization in 1964⁷, same additional cases treated surgically were also reported^{8,9}.

Case report

A 23 year old male applied to our clinic with the incidental findings of an enlarged heart shadow on direct x-ray obtained during a routine check-up. The physical examination of this young man who had had no

complaints revealed a blood pressure of 120/70 mmHg, with cardiac rate of 120/min.. On percussion an area of dullness on left lower half of his thorax with decreased expiratory sounds at the same are were detected. The heart sounds were prominent on the midline and at the right side of the sternum, that suggested rightward displacement of the heart. The ECG was normal except sinus tachycardia. Direct chest radiograms (Fig.1) in postero anterior position exhibited a global enlargement of the heart with smooth edges while lateral graphies demonstrated a lesion posterior to the left ventricle, reaching down to the diaphragmatic arch, with a lower density than that of the heart. The sizes of heart compartments and the anatomy of the valves were seen to be normal on echocardiography. Diastolic enlargement of the left ventricle was insufficient because of the external mass with the thickness of the myocardium being normal. The mass was observed to originate from the lateral wall of the left ventricle, protruding into the left lung with a solid echoe. These findings implied the presence of a lesion not primarily cardiac origin. Intravenous digital subtraction angiography was done in order to eliminate an aortic lesion, however it revealed normal. On CT a homogeneous mass lesion with a low

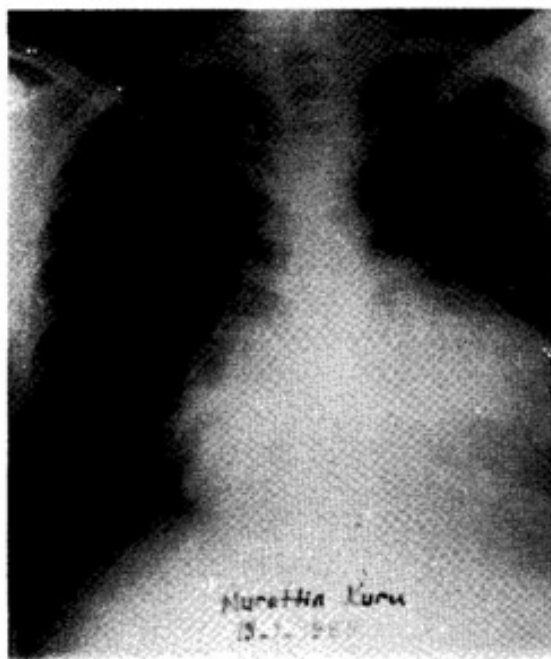


Fig. 1. Preoperative telecardiogram of the patient.



Fig. 2. Preoperative left lateral view of the chest.

density and smooth edges, which showed an enlargement in size towards the diaphragmatic surface and which caused the upward displacement of the left main bronchus was observed (Fig.3). These findings implied the high probability that the mass was benign nature. Since it demonstrated no contrast enhancement on CT and its density was equal to that of lipoma the diagnosis of intrathoracic lipoma was established and the patient was operated upon. On operation an encapsulated mass with the diameters of 19x17x10 cm which was derived from the pericardium, and showed no invasion to the lung, resembling a lipoma was totally removed. Histopathological examination confirmed our diagnosis.

Discussion

The symptoms of cardiac lipomas are variable. The most common one is dyspnea, the reason of which is the tumor, because of its external pressure effect, preventing the filling and ejection of the ventricles¹⁰. Even though it has been reported in the literature that small lipomas would not cause dyspnea, the large lipoma in our case didn't cause any dyspnea. We can explain the absence of cardiac symptoms in our case by the tumor enlargement towards the lungs.

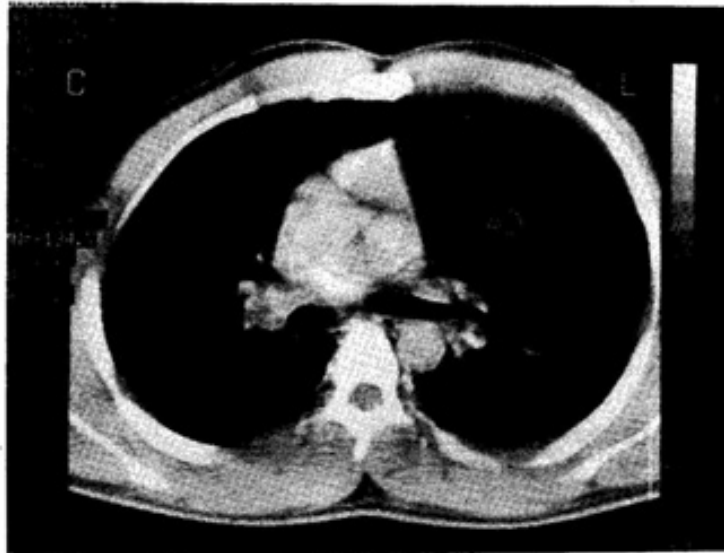


Fig.3. Preoperative CT scan of the chest demonstrating the pericardial mass.

Preoperative diagnosis of cardiac lipomas is rare. Chest x-ray, echocardiography and angiography may permit us to consider the presence of a cardiac mass, but they cannot clearly identify whether it was a lipoma or not. However, CT may confirm the preoperative diagnosis of a cardiac lipoma¹¹. Thus, also in our case, the preoperative diagnosis of a lipoma was made possible by means of the CT.

Just like the other surgically treated lipomas, the lipoma in our case was also stalked. This let the tumor get extracted easily and completely.

Consequently, pericardial lipomas should be considered in the differential diagnosis of the reasons enlarging the cardiac borders in the telecardiography.



Fig. 4. Postoperative gross view of the pericardial mass.



Fig.5. Postoperative control telecardiogram of the patient.

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