

Concomitant giant cardiopericardial and right pulmonary hydatid cysts

Dev kardiyoperikardiyal ve sağ akciğer kist hidatik birlikteliği

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Cardiac hydatid cyst is a rarely encountered parasitic disease. Most cardiac hydatid cysts are located in the left ventricular wall. Pericardial location is very rare. In this article, we present a 29-year-old female case with concomitant giant cardiopericardial and right pulmonary hydatid cysts.

Key words: Cardiac; hydatid cyst; pericardial.

Cardiac hydatid disease is a rare parasitic disease that remains endemic in both developed and developing countries.^[1] Cardiac hydatid cysts are also rare and represent 0.5-2% of all hydatid cysts in humans.^[2]

CASE REPORT

We report the case of a 29-year-old female who had been suffering from palpitation for two months. Investigations at another institution revealed a cystic lesion within the mediastinum next to the heart, and surgery was performed at that facility. An intrapericardial cystic lesion was discovered during the procedure that was located in the left atrium and ventricle. Moreover, it was stated that the lesion might have been invading the heart. Therefore, after that operation was completed, the patient was referred to our center for a surgical approach involving cardiopulmonary bypass (CPB). Echocardiographic and computed tomographic (CT) investigations were repeated at our clinic, and they showed a giant cystic lesion adjacent to the lateral left ventricular wall along with a homogenous soft tissue measuring 16 mm at the basal region of the right hemi-lung that was consistent

Kardiyak kist hidatik, nadir rastlanan parazitik bir hastalıktır. Kardiyak kist hidatiklerin birçoğu, sol ventrikül duvarına yerleşimlidir. Perikardiyal yerleşim oldukça nadirdir. Bu yazıda, dev kardiyoperikardiyal ve sağ akciğer kist hidatik birlikteliği gösteren 29 yaşında kadın bir olgu sunuldu.

Anahtar sözcükler: Kardiyak; kist hidatik; perikardiyal.

with another cystic lesion. Our patient underwent a sternotomy, and CPB was established. During the procedure, a mass lesion measuring 10x10 cm on the left ventricular myocardium was explored, which was consistent with a hydatid cyst (Figure 1). The clear liquid within the cystic lesion was aspirated, and the cyst was irrigated with 3% sodium chloride (NaCl) solution. The germinative membrane was also removed (Figures 2 and 3), and capitonnage of the cystic structure was performed. A cystic lesion measuring 2x2 cm located within the lower lobe of right hemi-lung was then enucleated (Figure 4). The postoperative period was event-free, and the patient was then discharged on eighth postoperative day with a prescription for subsequent treatment with albendazole (400 mg/d). A histopathological examination confirmed the diagnosis of a hydatid cyst (Figures 5 and 6). No recurrence was observed throughout 2 years of follow-up.

DISCUSSION

Most cardiac hydatid cysts are located in the left ventricular wall, with a pericardial location being very rare.^[3] The clinical presentation ranges from an



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Figure 1. Intraoperative view of the giant cystic mass on the left ventricular myocardium.



Figure 4. Enucleation procedure of the mass lesion in the lower lobe of the right hemi-lung that was consistent with a hydatid cyst.

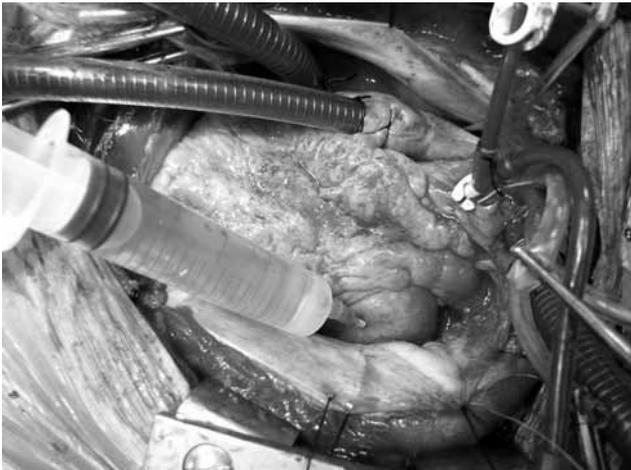


Figure 2. Aspiration of the clear fluid in the giant cystic lesion on the left ventricular myocardium.

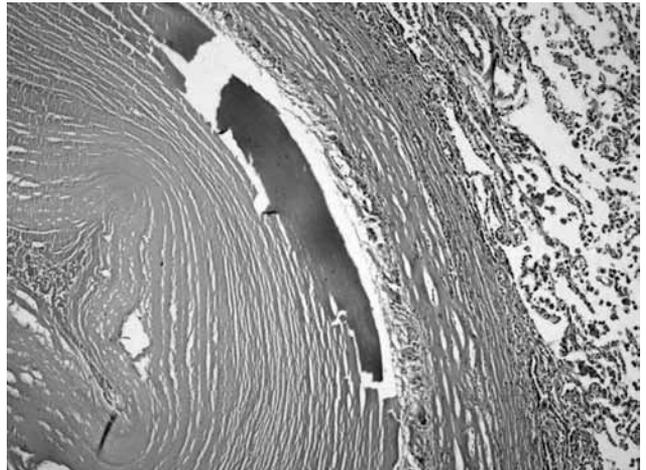


Figure 5. View of the cuticular membrane of the hydatid cyst within the lung tissue (H-E x 100).

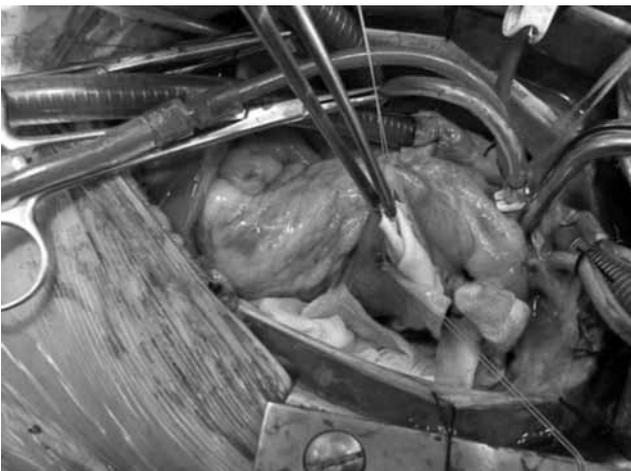


Figure 3. View of the removal of the opened cystic structure with its germinative membrane.

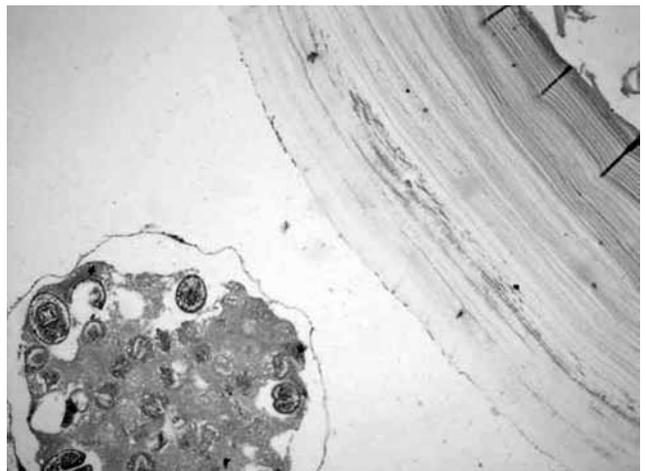


Figure 6. View of the cuticular membrane and daughter vesicles of the hydatid cyst within the heart tissue (H-E x 40).

absence of symptoms to congestive heart failure or other life-threatening sequelae.^[1] The risk of serious complications in the pericardium makes it essential that rapid diagnosis and appropriate surgical treatment take place as soon as possible.^[4] Transthoracic echocardiography (TTE) and transoesophageal echocardiography (TEE) are the imaging procedures of choice of cardiac hydatid cysts, and they have proven to be sufficient for their diagnosis. However, CT and/or magnetic resonance imaging (MRI) are able to provide more information about the extension of echinococcosis diseases in other intra- or extrathoracic locations.^[2] The most appropriate therapeutic option for a hydatid cyst is surgical removal of the cyst mass.^[3] A cystopericystectomy is the gold standard procedure, but it is sometimes unsuitable for some locations.^[5]

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REFERENCES

1. Tuncer E, Tas SG, Mataraci I, Tuncer A, Donmez AA, Aksut M, Yakut C. Surgical treatment of cardiac hydatid disease in 13 patients. *Tex Heart Inst J* 2010;37:189-93.
2. Mahdhaoui A, Bouraoui H, Majdoub MA, Jeridi G, Hajri SE, Trimeche B, et al. Cardiopericardial echinococcosis. *Rev Med Suisse Romande* 2003;123:169-73. [Abstract]
3. Guven A, Sokmen G, Yuksel M, Kokoglu OF, Koksai N, Cetinkaya A. A case of asymptomatic cardiopericardial hydatid cyst. *Jpn Heart J* 2004;45:541-5.
4. Mrad Dali K, Tlili K, Ly M, Romdhani N, Bakir D, Gharbi H, et al. Radioclinical profile of cardiopericardial hydatid: report of 17 cases. *Ann Cardiol Angeiol (Paris)* 2000;49:414-22. [Abstract]
5. Thameur H, Abdelmoula S, Chenik S, Bey M, Ziadi M, Mestiri T, et al. Cardiopericardial hydatid cysts. *World J Surg* 2001;25:58-67.