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Review Article

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ASSOCIATION OF HYDATID PERICARDITIS AND TUBERCULOUS MYOCARDITIS COMPLICATED WITH RUPTURED INTRACRANIAL ANEURYSM

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INTRODUCTION

Cardiac hydatidosis is rare, accounting for 0.2 to 2% of cases of hydatidosis. It mainly involves the left ventricle. Pericardial involvement is also very rare and presents a varied symptomatology, which makes the diagnosis quite challenging. Ultrasound and computed tomography as well as magnetic resonance imaging play a key role in the diagnosis of this disease.We report a compiled case of a patient in the department of Cardiology B, University Hospital in Rabat.

OBSERVATION

The case is that of a 22 year old male patient without any cardiovascular risk factors. He had a history of tuberculous myopericarditis treated back in 2014 by medical treatment with a good evolution. In June 2018, the patient underwent surgical drainage by abscess of the inferolateral wall of the left ventricle which extends to the pericardium, an abscess visually suggestive of hydatidosis, supplemented by a hydatid serology which became positive again. the extemporaneous examination returned to favor associated tuberculosis Unfortunately, the postoperative course was marked by the rupture of a mycotic aneurysm of the left middle cerebral artery. The cardiovascular examination was unremarkable while the neurological examination found right hemiparesis with aphasia. The ECG found a Q wave of septo-apico-lateral and inferior leads. Transthoracic echocardiography showed the presence of a neo-cavity of the infero-septal and infero-lateral walls communicating with the left ventricle. Angio-MRI showed a liquefied hematoma at the contact of a distal aneurysm of the left middle cerebral artery. Body Scan returned normal. The evolution was marked by a good improvement under optical medical treatment with Albendazole and ERIPK4, afterwards the patient was addressed to surgery for a more appropriate management.

Figure 1: Echocardiographic Image in Favor of a Cystic Cavity.

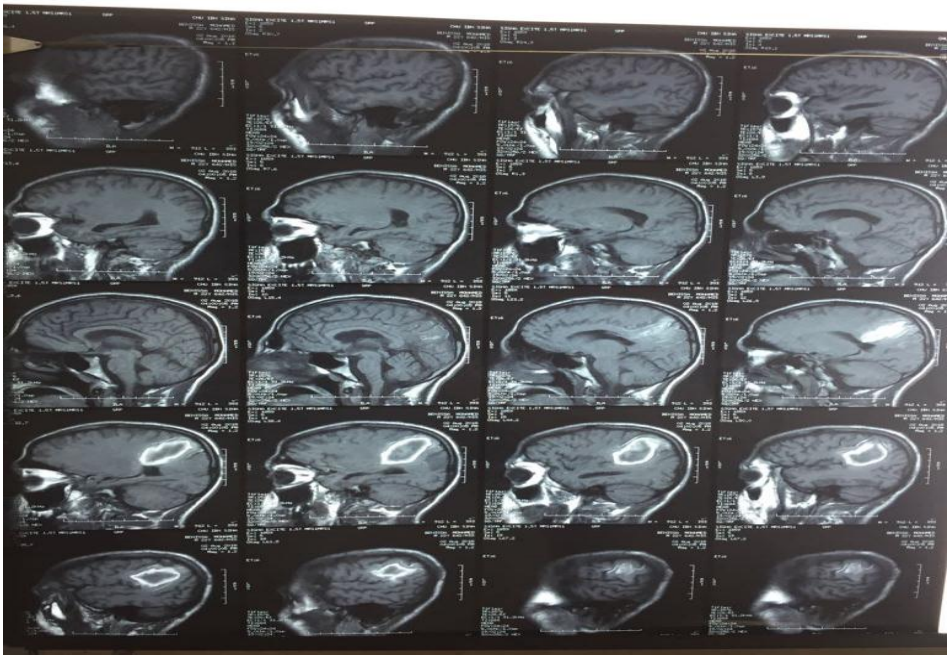

Figure 2: Angio-MRI showing a liquefied hematoma at the contact of a distal aneurysm of the left middle cerebral artery.

DISCUSSION

The patient is generally contaminated either indirectly by ingesting water or contaminated food with parasite eggs, or directly through contact with dogs. The larvae of E. granulosus arrives in the left cardiac cavities after escaping the hepatic filter, reaches the right atrium and from there the left heart through the pulmonary circulation, or even a patent foramen ovale.[4] From the left ventricle, the larvae are expelled into the systemic circulation, and through the coronary arteries, the parasite thus can invade the myocardium.[5]

All localizations of the hydatid cyst of the heart are possible. The parasite is localized by order of frequency in: the left ventricle (50 to 60% of cases), the interventricular septum (10-20% of cases), the right ventricle (5-15% of cases), and cardio-pericardial localization is seen in 10-15% of cases. Pericardial localization without cardiac involvement is therefore extremely rare.[1,2] And always seems secondary.

The symptoms of pericardial hydatid cysts are nonspecific and varied, depending on the number, size and the localization of the cysts. Signs are generally expressed due to the external pressure exerted by the cyst's increase of size over the myocardium. Rupture of the cyst in the pericardial cavity can be responsible for an acute effusion with a classic clinical presentation of acute pericarditis (either serofibrinous or purulent) and of which the evolution is either towards cardiac tamponade or constrictive pericarditis,[1,6] although asymptomatic forms have been reported.[2,3]

Hydatid serology is positive in only 50% of cardiac hydatid cysts, and our patient had a positive serology. The diagnosis is based on cardiac imaging techniques, and hydatid serology. Two-dimensional transthoracic echocardiography is currently the test of choice for the diagnosis of cardio-pericardial hydatid cysts,[2,7] while CT scan and magnetic resonance imaging (MRI) are needed either to rule out other cystic mass diagnoses, or to precisely describe its surroundings.

The treatment of pericardial hydatid cysts is surgical. It consists of an excision of the cysts to avoid possible complications that can be fatal in case of rupture, even in asymptomatic patients.[2,8] Medical treatment is the best choice of therapy for non-operable patients either due to the numerous hydatid cysts, or due to the morbi-mortality risk. It can also follow a surgical procedure as a complementary treatment when there is a risk of dissemination. The most commonly used product is Albendazole® at a dose of 10 to 15 mg / kg per day with an off period of 2 weeks after a month of cure, for a total period of six month.[2]

CONCLUSION

Pericardial localization of hydatidosis is rare, and its clinical presentation is not specific and is sometimes late. Diagnosis is based on imaging data, and the treatment is surgical.

Competing interests

The authors have declared that no competing interest exists.

Ethical Approval

Ethics Committee of the cardiology department of the university hospital of rabat, Mohammed 5 University, Rabat, Morocco

Author's contributions
MY drafted the manuscript and all authors read and approved the final manuscript.

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