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CASE REPORT

Simple mesothelial pericardial cyst in a rare location

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KEYWORDS
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Abstract Pericardial cysts are rare and generally benign intrathoracic lesions, most frequently located in the cardiophrenic angles, but other locations have been described. We present a case of a pericardial cyst in a previously undescribed site. Our patient presented with a cyst in the interventricular septum which was discovered as an incidental finding. After surgical excision of the cyst, it was described pathologically as a simple mesothelial pericardial cyst. The explanation of this rare condition is uncertain, but some hypotheses can be outlined.

PALAVRAS-CHAVE
Cisto pericárdico;
Ecocardiograma;
Ressonância magnética;
Patologia

Cisto pericárdico mesotelial simples numa localização rara

Resumo Os cistos pericárdicos são lesões intratorácicas raras e geralmente benignas, mais frequentemente localizadas nos ângulos cardiofrénicos, no entanto, outras localizações têm sido descritas. Apresentamos o caso de um cisto pericárdico num local não descrito previamente. O nosso doente apresentou-se com um cisto no septo interventricular que foi detetado como achado incidental. Após a excisão cirúrgica do cisto, este foi descrito anatomopatologicamente como um cisto pericárdico mesotelial simples. A explicação para esta localização incomum é incerta, mas algumas hipóteses podem ser delineadas.

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Introduction

Congenital pericardial cysts are rare and benign intrathoracic lesions.[1,2] The preferential location is in the cardiophrenic angles,[1] but other unusual locations have been described. We present a case of a pericardial cyst in a particularly uncommon location.

Case report

A 39-year-old man was referred for evaluation of an intracardiac mass. His past medical history was irrelevant except for allergic rhinitis. He worked in the environmental department of the National Republican Guard, and was thus frequently in contact with animals. There was no relevant travel abroad, consumption of potentially hazardous foods, or alcohol or drug abuse.

Regarding family history, his mother was diagnosed with systemic hypertension in her twenties and was being followed for suspected aortic dilatation and cardiac valve disease. His father also had hypertension.

The patient was asymptomatic and underwent routine exams, including an electrocardiogram which revealed nonspecific abnormalities due to which he was referred for a transthoracic echocardiogram (TTE). This showed an intracardiac cystic mass. A transesophageal echocardiogram (TEE) and additional blood tests were performed. The latter only revealed eosinophilia of 3.1%, while the former confirmed the presence of a cystic mass with a diameter of 4.5 cm located in the interventricular septum, protruding into the left ventricular outflow tract and extending to 1 cm below the aortic valve, with associated septal hypokinesia, and without continuity with the cardiac chambers. A bicuspid aortic valve with moderate aortic regurgitation and a dilated ascending aorta were also observed. Magnetic resonance imaging (MRI) showed the mass to be hyperintense in T2, revealed moderate aortic regurgitation and confirmed the other echocardiographic findings (Figure 1). The patient was asymptomatic.

He was then referred for cardiac surgery evaluation, and underwent a new TTE in our hospital, which confirmed the previous findings. The case was discussed and accepted for surgery.

The patient underwent surgery, the cyst being excised through enucleation by blunt dissection with (at times unsuccessful) attempts to preserve the capsule (Figure 2A-C) plus aortic valve replacement with a mechanical valve (27 mm St. Jude Medical Regent®). The ascending proximal aorta and the aortic root (noncoronary sinus) were replaced with a 28 mm Gelseal® graft by a modified Bentall procedure. There were no complications during surgery. The postoperative echocardiogram showed that the inferior part of the septum was thin and dyskinetic, but there were no other abnormalities. The patient was discharged 10 days after surgery (Figure 2D-E).

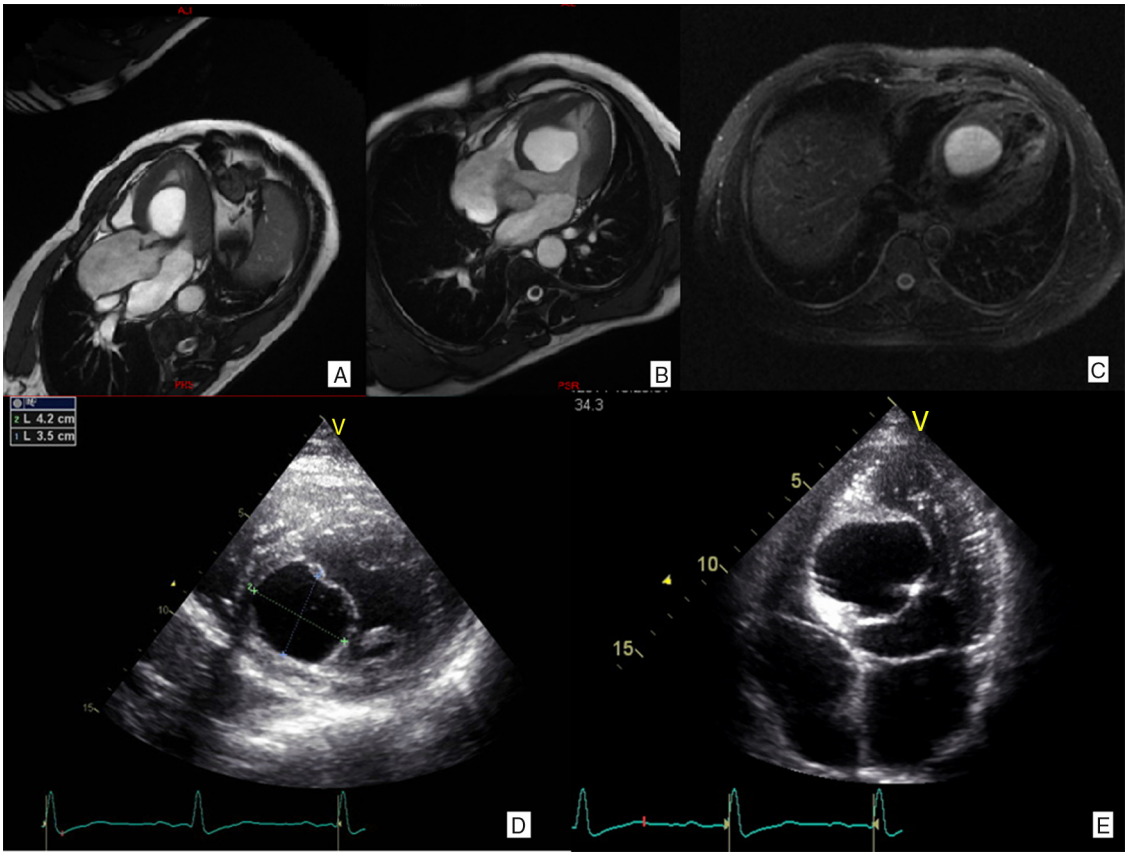

Figure 1 Imaging of the cyst before surgery. (A-C): Magnetic resonance imaging showing the cyst with T2-weighted hyperintense signal; (D and E): transthoracic echocardiogram showing the location of the cyst in the interventricular septum and anechogenic appearance.