ID: 14-0075; March 2015
DOI: 10.1530/ERP-14-0075

IMAGES AND VIDEOS

Large isolated hydatid cyst of the interventricular septum

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Summary

A 54-year-old woman was referred to our echocardiography clinic for long-standing hypertension. She did not have any chest pain, dyspnoea, fever or weight loss. She was on losartan of dose 25 mg twice daily. She did not have history of contact with livestock or pet animals. Electrocardiogram showed T-wave inversion in V1–V3 leads. On transthoracic echocardiography, there was a large mass in the interventricular septum (Fig. 1, Videos 1 and 2). Computerised tomography (CT) of the chest showed a cystic mass (85×65 mm) over the interventricular septum with a rim-like calcification of its wall consistent with cardiac hydatid cyst (Fig. 2). The lungs appeared normal and free of disease. CT images of the brain and the abdomen were otherwise normal with no cerebral or hepatic involvement. The patient underwent

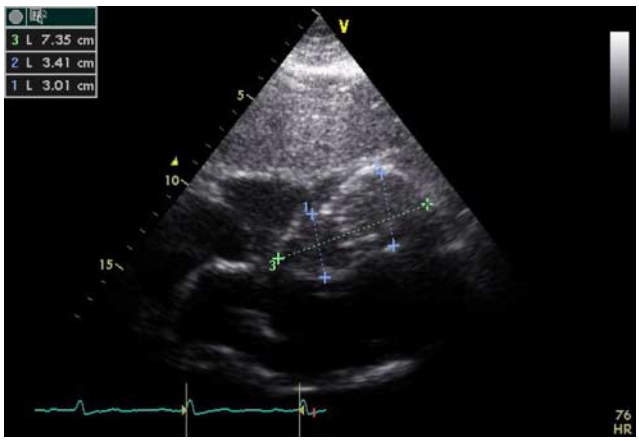

Figure 1
A transthoracic echocardiographic image from subxiphoid window showing the large mass in interventricular septum.

Video 1

Transthoracic echocardiogram from subxiphoid showing the large mass in the interventricular septum. Download Video 1 via http://dx.doi.org/10.1530/ERP-14-0075-v1

Video 2

Transthoracic echocardiogram from the long-axis parasternal showing the large mass in the interventricular septum. Download Video 2 via http://dx.doi.org/10.1530/ERP-14-0075-v2

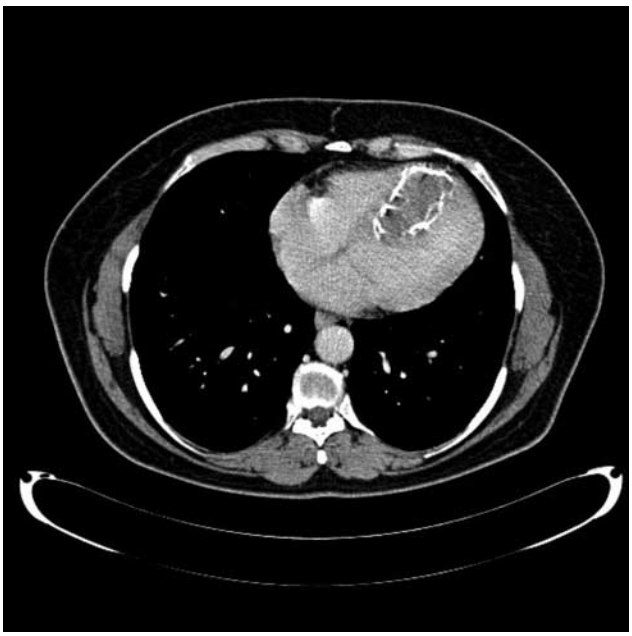

Figure 2
Computed tomography (CT) scan image of the heart showing the large interventricular hydatid cyst with calcified borders.

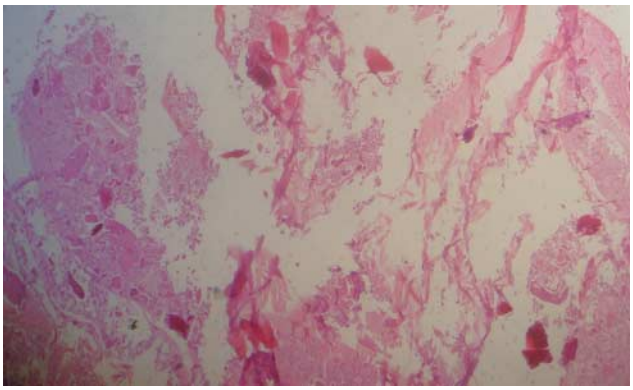

Figure 3
Microscopic examination of the mass is compatible with hydatid cyst.

Video 3

Transthoracic echocardiogram from apical four-chamber view showing the large mass in the interventricular septum. Download Video 3 via http://dx.doi.org/10.1530/ERP-14-0075-v3

surgery and pathological examination was consistent with echinococcal hydatid cyst (Fig. 3). She made full recovery following surgery (Video 3).

Hydatidosis most frequently involves the lungs and the liver though it can potentially occur in any tissue (1). Cardiac involvement is seen in 0.02–2.0% of patients with hydatidosis. Echinococcal seeding of the myocardium occurs either through arterial or through venous circulation (1). Interventricular septum involvement accounts for 4% of cardiac cases (1, 2). In more than half of the cases, heart is not the only involved organ (3). Symptoms of cardiac hydatid cyst depend on the age, size, location and involvement of neighbouring structures (1). Cardiac hydatid cysts are typically asymptomatic with only 10% of patients having symptoms at earlier stages (2). Approximately 10% of the cardiac cysts remain asymptomatic for many years, the remaining generally become symptomatic as the disease progresses (3). Chest pain is the most commonly reported symptom followed by palpitations, cough and dyspnoea (3). They can present with symptoms of valvular dysfunction, various conduction disturbances (in those with interventricular septum involvement or even cardiac tamponade (secondary to the rupture of the cyst) and sudden cardiac death (3). In the presented case, subtle electrocardiographic findings prompted further work up which lead to the diagnosis, though the patient did not report symptoms related to the large cyst.

Surgical excision is the definitive treatment and it is recommended even in asymptomatic patients due to the seriousness of the complications following spontaneous rupture of the cysts (3). Surgery generally yields complete recovery and the prognosis is excellent (4).

Declaration of interest
The authors declare that there is no conflict of interest that could be perceived as prejudicing the impartiality of the research reported.

Funding
This research did not receive any specific grant from any funding agency in the public, commercial or not-for-profit sector.

Patient consent
An informed consent has been obtained from the patient for publication of this article.

Author contribution statement
R Salehi performed echo and interpretation and helped in case presentation; L Pourafkari helped in echo and prepared case presentation; R Parvizi performed cardiac surgery and helped in manuscript preparation; N D Nader critically revised the paper and reported the pathology.

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Received in final form 27 November 2014
Accepted 19 December 2014