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IMAGES IN CARDIOLOGY

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Idiopathic diverticulum-type enlargement of the right atrium demonstrated by multislice computed tomography

A 77-year-old man presented because of heart enlargement on chest x ray. Transthoracic echocardiography revealed an abnormal mass located in front of the right atrium (RA), with blood flow from the RA to the mass.

Electrocardiogram-gated enhanced, multislice computed tomography (CT) (Light Speed Ultra 16, General Electric) was performed with a 1.25 mm slice thickness and helical pitch of 6.00. Thirty seconds after intravenous injection of 100 ml of iodinated contrast material (350 mgI/ml), CT scanning was performed with retrospective electrocardiogram-gated reconstruction, and volume data were transferred to a workstation (Virtual Place Advance Plus, Aze, Japan).

In the axial source image (panel A), there was a large diverticulum-type enlargement of the RA (DERA) which was connected to the RA. Volume rendered image (panel B) also revealed a DERA and an enlarged right atrial appendage (RAA). As there were no other abnormalities of the heart and great vessels, the diagnosis was idiopathic DERA. There was no thrombus in the DERA and no clinical symptoms of heart failure. Furthermore, as a Holter ECG did not reveal arrhythmias, such as paroxysmal supraventricular tachycardia or

paroxysmal atrial fibrillation, no diverticulectomies were planned. RV, LV, and PT indicate right and left ventricle and pulmonary trunk, respectively.

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