Abstract: P1242

Giant right atrium aneurysm presenting as right heart failure

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Topic(s):
Echocardiography: Dimensions, Volumes and Mass

Citation:

Introduction
Idiopathic aneurysmal dilatations of the right atrium are rare anomalies. It can be diagnosed at any time between foetal and adult life. This exceptional condition can be confused with other conditions that involve enlargement of right atrium.
We report a clinical case of a symptomatic adult who was diagnosed with giant right atrium aneurysm.

Case report
An 83-year-old female presented with complaints of fatigue, paroxysmal nocturnal dyspnoea, exertional dyspnoea, orthopnoea and cough since last week. There were no history of syncope, convulsions or evidence of thromboembolism. There were a medical history of diverticulosis and atrial fibrillation (warfarin therapy). The principal findings on physical examination included holosystolic murmur at the left middle sternal border, pulmonary rales, jugular venous distension, enlarged liver and peripheral oedema. An electrocardiogram showed an atrial fibrillation with a controlled heart rate response, right axis deviation, right bundle-branch block. A chest radiography posteroanterior view showed a markedly enlarged cardiac silhouette, increased pulmonary vascular congestion, and bilateral pleural effusions. Computed tomography (CT) scan showed aneurysmal dilated right atrium communicating with right ventricle. Right ventricle (RV) and RV outflow tract were dilated with normal pulmonary arteries. Two-dimensional transthoracic echocardiography revealed aneurysmal dilated right atrium measuring 398mL/m2. The tricuspid valve was no displaced. There was severe tricuspid regurgitation and no stenosis. The right atrium was kinetic without any intracavitary thrombus. The intertrial and interventricular septa were intact. The right ventricle and outflow tract were mildly dilated with preserved systolic function. The left atrium and left ventricle were normal. The patient was admitted to the cardiology department with the diagnosis of right heart failure.

Conclusion
Aneurysm of right atrium is an uncommon condition. It is diagnosed as a disproportionately enlarged right atrium compared to the other cardiac chambers in the absence of other cardiac or hemodynamic abnormalities and must be distinguished from other anomalies causing structural pathology of the right atrium. Approximately, one-half of the patients have no symptoms. Others presented with arrhythmia, palpitations, chest pain, shortness of breath, and fatigue. The major rhythm abnormality is atrial fibrillation or atrial flutter. Our patient presented with symptoms of right heart failure and atrial fibrillation. The right enlargement is usually associated with tricuspid annular dilatation responsible for functional regurgitation, which can be severe in some cases. The diagnosis of right atrium malformation can be established by echocardiography, CT or magnetic resonance imaging. Literature reports various ways to manage these patients. Treatment ranges from conservative to surgical resection specially in the presence of arrhythmias.
Abstract: Giant right atrium aneurysm presenting as right heart failure

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