

Intrapericardial rupture of aortic dissecting aneurysm

Clinical Case Portal

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Introduction

We present the case of a 32 year old male who presented to the emergency department after a syncopal episode. Transthoracic echocardiography revealed a large intrapericardial mass, compressing right atrium and ventricle. Aortic dissection was suspected and confirmed by transesophageal echocardiography.

Case Report

Patient history prior to current observation

The patient had a history of aortic valve replacement (mechanical prosthesis), due to bicuspid aortic valve leading to severe aortic regurgitation, thirteen years ago. He was on oral anticoagulants since then.

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Clinical findings on admission, evolution and outcome

On admission, heart rate was 114 per minute and blood pressure was 90/60 mmHg on both arms. The temperature was 36,9°C. On cardiac auscultation, a diastolic murmur of aortic regurgitation was evident. Peripheral pulses were equal. On deep abdominal palpation there was epigastric tenderness.

The patient's blood pressure was progressively decreasing and there were clinical signs of tamponade-tachypnoea, cyanosis, jugular vein distention. A transthoracic echo was performed and showed a large intrapericardial mass, which was compressing right heart cavities (fig1). Then, the patient underwent a transesophageal echo for further evaluation. Findings were a true and a false aortic lumen, arising from the ascending aorta.(fig.2, fig.3) The above led to the diagnosis of proximal aortic dissection.

The patient was managed surgically. On operation, intrapericardial rupture and a thrombus causing compression of the right cavities were found. The rupture was confined to the right cavities due to adhesions from the previous aortic valve operation.

Discussion

Aortic dissection is an uncommon but potentially lethal condition (ref. 1). Early diagnosis is a key to reduce mortality. Clinical symptoms can be misleading or subtle, even in cases of large dissecting aneurysms. The most definite diagnostic modalities are transesophageal echocardiography and CT imaging of the aorta.

Conclusion

Our patient presented with syncope and epigastric pain due to the dissection. Progressively he developed cardiac tamponade. Findings from transthoracic and then transesophageal echocardiography led to the diagnosis of aortic dissection with intrapericardial rupture. We want to emphasize the fact that the rupture did not extent into the whole pericardium because of the presence of adhesions, as a result of the previous operation for aortic valve replacement.

Our patient was submitted to aortic valve replacement due to bicuspid aortic valve, thirteen years ago. Today, it is well known that bicuspid aortic valve is associated with disease of the ascending aorta (ref.2), therefore aortic valve surgery in these cases, is combined with replacement of the ascending aorta (ref.3).

References

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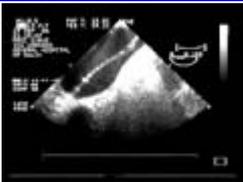
Video 1 :

[Intrapericardial mass-Transthoracic echo](#)



Video 2 :

[True and false lumen-Transesophageal echo](#)



Video 3 :

[Ascending aorta dissection-Transesophageal echo](#)

