

A difficult diagnosis at transesophageal echocardiography. Artifact mimicking intimal aortic flap

Clinical Case Portal

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Case Report

Male, 47 y/o, admitted in Feb 2002 for progressive exercise and resting dyspnoea, palpitations and chest pain for the last week. Paroxysmal atrial fibrillation in 1992.

Clinical exam: moderate cardiomegaly, irregularly irregular heart beats, HR of 178/min, jugular vein distension and hepatomegaly.

ECG: Atrial fibrillation, HR = 170 bpm , QRS axis at +90° , rSR' in V1

Chest X-ray: moderate cardiomegaly with enlarged right heart, dilated pulmonary artery branches and pulmonary congestion.

Transthoracic echocardiography (fig. 1) showed enlarged right ventricle, normal sized left ventricle with normal global systolic function, ascending aorta at upper limit of normal, moderate pulmonary hypertension, ostium secundum type atrial septal defect .

Transoesophageal echocardiography was performed. The presence and size of atrial septal defect were better assessed. The short axis view of the descending aorta (fig. 2) revealed a linear echo into the aortic lumen, suggesting an intimal flap. The colour Doppler signal (fig. 3) partially covered the linear image.

Since the patient experienced chest pain, a **spiral CT** was performed. It showed normal sized descending aorta with no signs of aortic dissection (fig. 4).

The patient refused electrical cardioversion, any other tests and surgery. At a 9 month follow-up he was symptom-free.

Diagnosis:

- OS type ASD, and moderate pulmonary arterial hypertension (SPAP of 50 mm Hg)
- Recent-onset atrial fibrillation
- Mild congestive heart failure (NYHA II)

Comments on relevant aspects of the case: false positive TEE diagnosis of aortic dissection (**artifact**)

- Specificity of TEE for aortic dissection detection is very high.
- False-positive diagnoses of flap occur mainly in the ascending aorta (23%- 40%) and less often in the descending aorta (10%), Lack of colour flow turbulence near the artifact is a diagnostic key (colour flow covers artifacts, but not real flaps: tissue priority)
- MRI and/or CT scans may be necessary for confirming the diagnoses.

Video 1 :



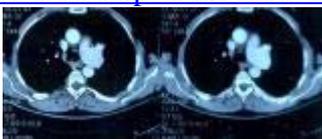
Video 2 :

[Transthoracic parasternal long axis view](#)



Fig. 1 :

[Thoracic spiral CT with contrast](#)



Video 3 :

[Transoesophageal echocardiography short axis view of descending aorta](#)

