CARDIOVASCULAR FLASHLIGHT

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A huge atrial thrombus in a patient with bioprosthetic valve and atrial fibrillation: something went wrong with anticoagulation therapy

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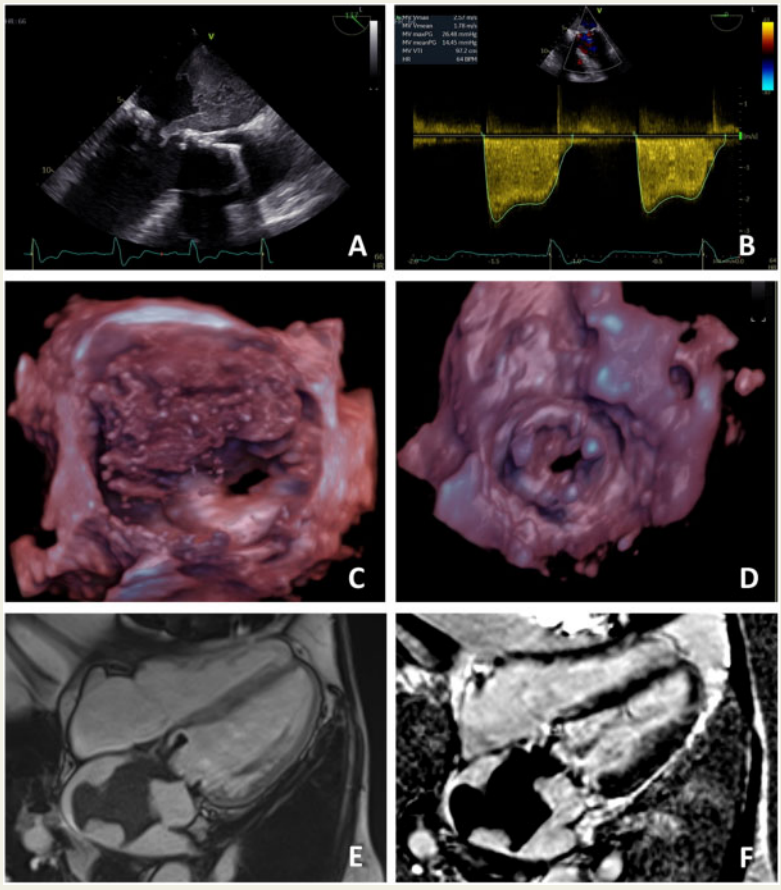
The use of non-vitamin K antagonist oral anticoagulants (NOAC) in patients with bioprosthetic valves (BV) is controversial. Generally, NOAC may be indicated in patients with BV associated with atrial fibrillation (AF) after 3 months following surgery to reduce the thrombo-embolic risk related to AF, but not to the BV itself.

An 86-year-old patient with a history of aortic and mitral valve replacement with BV, paroxysmal atrial fibrillation, and chronic kidney disease developed NYHA Class III dyspnoea 8 years after surgery, while he was under treatment with rivaroxaban 15 mg.



Transthoracic echocardiogram showed high transmitral bioprosthetic gradients, and thus transoesophageal echocardiography was per formed (*Panels A–D*). (*Panel A*) Mid-oesophageal long-axis view showing an isoechoic mass arising from the BV and limiting the opening of valve cusps. (*Panel B*) Transprosthetic gradient, in sinus rhythm. (*Panel C*) Atrial 3D-view of the huge atrial mass, adherent to the valve, and the left atrial wall. (*Panel D*) Ventricular 3D-view of BV, 3D-valve area was 0.8 cm^2.

Cardiac magnetic resonance was performed to characterize the left atrial mass. (*Panel E*) Cine-MR-image of the huge bat-like mass. (*Panel F*) Late gadolinium enhancement sequence with the typical dark appearance of the thrombus.

Anti-Xa activity was measured before switching to Vitamin K antagonists (VKA), and the value was consistent with active rivaroxaban therapy.

Even if current guidelines suggest the use of NOAC in patients with BV (EHRA type II valvular heart disease), mitral BV have high thrombo-embolic risk, especially several years after surgery, when switch to VKA should be considered.

Supplementary material is available at *European Heart Journal* online.

Conflict of interest: The authors have submitted their declaration which can be found in the article Supplementary Material online.