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## Case report: aortic bioprosthesis marantic endocarditis

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We describe the case of a 75-year-old man presenting to the emergency with a stage III dyspnoea evolving for several months. His main medical history was an aortic valve replacement 8 years ago, a paroxysmal atrial fibrillation anticoagulated by Edoxaban 60 mg daily and a metastatic melanoma in progression despite ongoing immunotherapy. In front of this dyspnoea, the oncologist suspected a toxic pneumopathy due to Pembrolizumab requiring the interruption of this medication and administration of systemic corticotherapy. In the absence of clinical improvement, a transthoracic cardiac ultrasound was performed and reported a bioprosthetic stenosis: peak aortic velocity of 4.73 m/s, peak and mean gradients of 89 mmHg and 50 mmHg and a calculated valvular area of 0.9 cm<sup>2</sup> according to the continuity equation (Panel A). The transesophageal echocardiography revealed a diffuse thickening of the aortic leaflets (Panel B). A cardiac multi-detector computed tomography was realised and identified a thrombus between the right

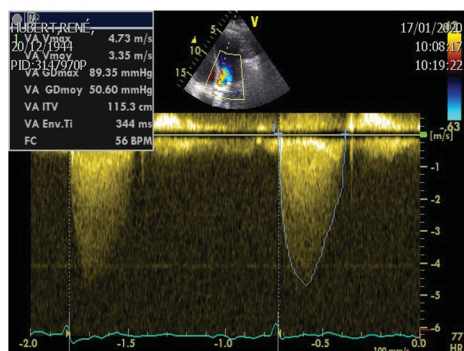
and the non-coronary leaflets (Panel C). An infective endocarditis then was excluded: negative blood cultures, negative inflammatory syndrome, absence of fixation at <sup>18</sup>F-DG PET-CT. Edoxaban was replaced by Enoxaparin with rapid improvement in symptoms and reopening of the valve at the control of echocardiography (Panel D).

We have known for long that cancers can be associated with a hypercoagulability state and that high doses of corticotherapy can also exacerbate it. In the literature, there is no other reported case of bioprosthetic thrombosis in metastasised melanomas. This case also illustrated that the use of direct oral anti-coagulant (DOACs) was unable to prevent valve thrombosis in the present oncologic context.

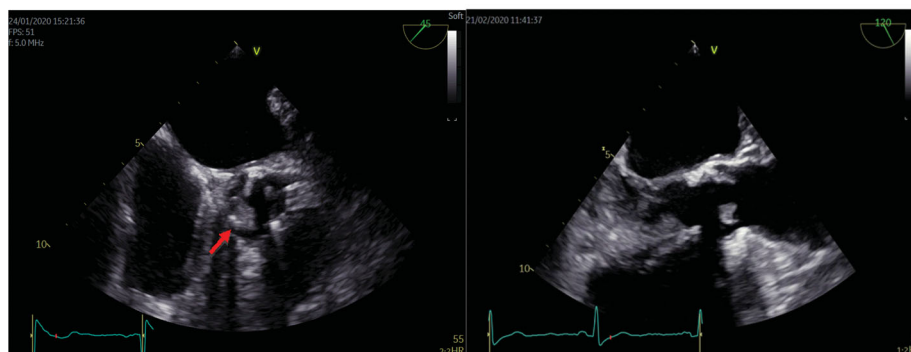
### Disclosure statement

No potential conflict of interest was reported by the author(s).

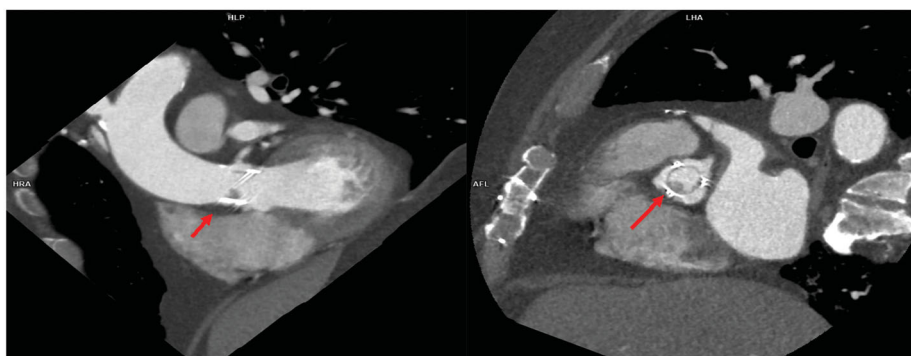
Panel A



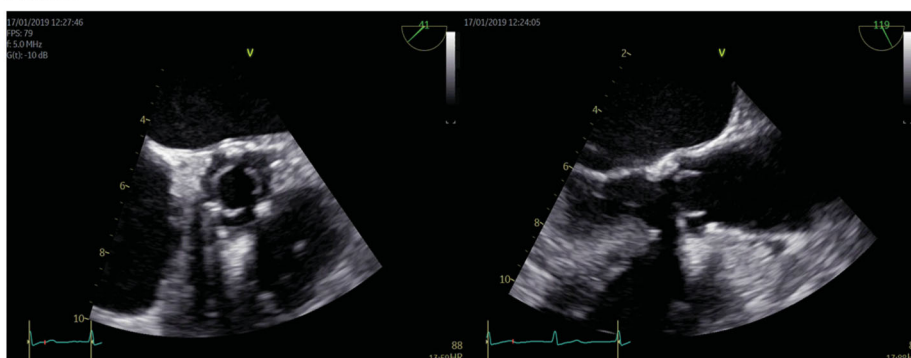
Panel B



Panel C



Panel D



Panel A: Increased trans aortic pressure gradients and peak velocity revealed by a transthoracic echocardiography. Panel B: Diffuse thickening and reduced mobility of the aortic leaflets showed by transesophageal echocardiography. Panel C: Thrombus (hypo attenuating opacity during systole and diastole) between the right and the non-coronary cups pointed by the arrow on these cardiac multi-computed tomography images. Panel D: Second transesophageal echocardiography after Enoxaparin therapy: improvement of the aortic leaflets thickening and much better opening of the bioprosthetic valve.