Near complete resolution of nonbacterial thrombotic endocarditis in a patient with antiphospholipid antibody syndrome 🚳

A 64-year-old woman with a medical history significant for cirrhosis, portal vein thrombosis on rivaroxaban, cerebrovascular accident, antiphospholipid antibody syndrome (APLS), and streptococcus mitis endocarditis with complete resolution underwent a routine screening transthoracic echocardiogram, which demonstrated new mitral valve vegetations on both the anterior and posterior leaflet tips with moderate-severe mitral valve regurgitation. A transesophageal echocardiogram demonstrated irregular, mesoechoic, and mobile vegetations attached to the P2 (largest, 1.4×0.9 cm) and A2 leaflets (largest, 1.3×0.8 cm), with moderate-severe commissural regurgitation (Fig. 1, Supplementary Video 1). Further work-up ruled out infectious endocarditis and suggested nonbacterial thrombotic endocarditis (NBTE) as the underlying etiology. The patient was transitioned from rivaroxaban to warfarin. After 8 weeks of warfarin therapy, a repeat transesophageal echocardiogram was performed and showed complete resolution of the P2 leaflet vegetation, reduction in size of mass on the A2 leaflet (1.2×0.3 cm), and significant improvement in mitral regurgitation from moderate-severe to mild (Fig. 2, Supplementary Video 2). At the time of this report, she is currently maintained on warfarin therapy and is being monitored with serial transthoracic echocardiogram.

NBTE is an uncommon entity, most commonly associated with malignancy or autoimmune disease, such as APLS (1). The estimated prevalence of NBTE ranges from 0.3% to 9.3% (2). In patients with APLS, as many as one-third develop cardiac valve disease (3, 4). The case reported here represents a rare occurrence of near resolution of NBTE and improvement in mitral valve

regurgitation with warfarin therapy, obviating the need for surgical intervention.

Informed consent: The informed consent was obtained from the patient.

References

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Figure 1. (a) Transesophageal echocardiogram demonstrating a 1.4×0.9 cm mass on the P2 leaflet and a 1.3×0.8 cm mass on the A2 leaflet. (b) Color Doppler image demonstrating moderate-severe mitral valve regurgitation. (c) 3-dimensional transthoracic echocardiogram demonstrating a 1.4×0.9 cm mass on the P2 leaflet and a 1.3×0.8 cm mass on the A2 leaflet



Figure 2. (a) Transesophageal echocardiogram demonstrating near complete resolution of the mass on the posterior leaflet and mild mitral valve regurgitation on color flow Doppler. (b) 3-dimensional transesophageal echocardiogram demonstrating a residual 1.2×0.3 cm mass on the A2 leaflet

Supplementary Video 1. Pre-treatment combined video illustrating the masses on the A2 and P2 leaflets, color Doppler with moderate-severe regurgitation, and 3-dimensioanl transesophageal echocardiogram.

Supplementary Video 2. Post-treatment combined video illustrating the resolution of a mass on the P2 leaflet, near resolution on the A2 leaflet, color Doppler demonstrating improvement in mitral regurgitation, and 3-dimensional transesophageal echocardiogram.

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