Abstracts i941

Poster Session

P1463

Severe stenosis due to obstructive prosthetic thrombosis with truevue, a new echocardiographic tool

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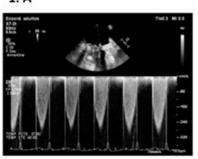
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A 70-year-old woman was admitted to the emergency department because of cardiogenic syncope and acute heart failure. She had a mechanical mitral prosthesis (MMP) (ATS Open Pivot 25 mm) implanted in August 2018, due to degenerative rupture of posterior leaflet. One month before admission anticoagulation was temporally interrupted due to humerus surgery. At admission, a transthoracic echocardiogram demonstrated a significant increase in MMP gradient with preserved ejection fraction and a pulmonary artery pressure of 50mmHg. To improve the assessment of MMP a transesophageal echocardiogram (TEE) was performed showing a restricted mobility of the mitral anterior prosthetic lens and a complete block of the mitral posterior lens leading to a severe mitral stenosis (mean pressure gradient 21 mmHg, peak pressure gradient 34 mmHg and peak velocity 2.9 meters/second) with a CW pattern that simulate an aortic morphology (Image 1A). MMP three-dimensional (3D) images were processed using a dedicated transillumination technology that uses a freely movable virtual light to enhance image details and depth (Image 1B and 1C). This rendering tool allows us to characterize tissue consistency and boundary delimitation, confirming the presence of a large thrombus that surrounded the entire posterior region of the prosthetic ring leading to a MMP 3D effective area of 0.49 cm2. After discussing the case with the valvular Heart Team an urgent surgery was performed to replace MMP.

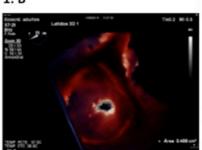
This case shows how the transillumination rendering tools enhance specific image features in prosthetic cardiac valves in critical clinical scenarios as symptomatic MMP thrombosis.

Abstract P1463 Figure. Image 1

1. A



1. B



1. C

