

A STARTLING ENCOUNTER DURING TRANSESOPHAGEAL ECHOCARDIOGRAPHY: REAL-TIME THREE-DIMENSIONAL DEMONSTRATION OF HIGHLY MOBILE THROMBI ON THE AORTIC ARCH

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Aortic atherosclerotic plaque in the aortic arch is a major cause of embolic stroke. To investigate the cardiovascular source of embolic events including this, transeophageal echocardiography (TEE) plays important roles.

A 63-year old male presented to emergency room for severe occipital headache and diplopia. Magnetic resonance imaging of the brain showed multiple newly onset cerebral infarction. His routine transthoracic echocardiographic exam excluded the presence of valvular or intracavitary embolism. However, two-dimensional (2D) TEE exam showed severe aortic atherosclerotic plaque and mass on it (Fig. 1). A real-time three-dimensi-

onal (RT3D) technology using an X7-2t TEE transducer and a commercially available ultrasound system (Philips iE33, Andover, MA) shows not only severe aortic atherosclerotic plaque but also the precise demonstration of the site and nature of the protruded flail masses on the severe aortic plaque, realistically (Fig. 2). RT3D TEE shows more improved anatomic representation showing proper morphological evaluation of mobile masses and atherosclerotic plaques compared with 2D TEE. The protruded flail masses were disappeared after two weeks of anticoagulation therapy and were thought as thrombi. We assessed his cerebral infarction might be origi-

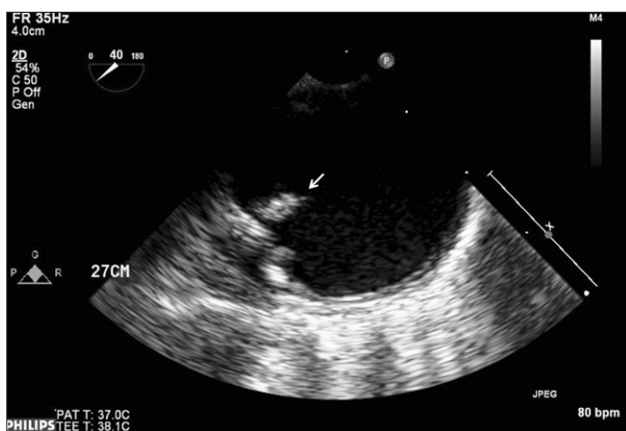


Fig. 1. Two-dimensional transesophageal echocardiography showed severe atherosclerotic plaque of the aortic arch and highly mobile mass on it (arrow). Because the mass lesion was disappeared with two weeks of anticoagulation therapy, we assessed that mass might be thrombus.

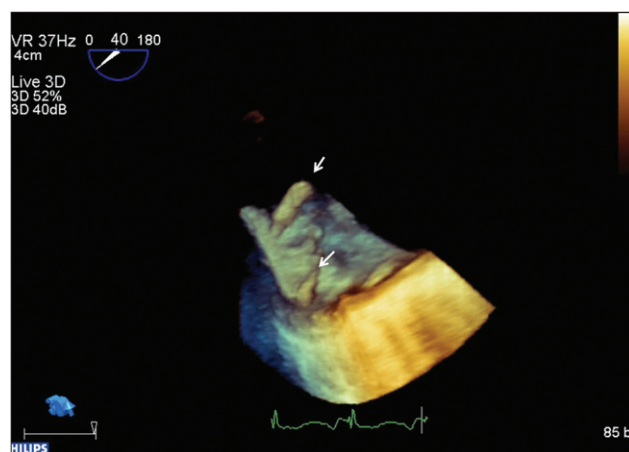


Fig. 2. Real-time three-dimensional transesophageal echocardiography revealed highly mobile masses (arrow) on the severe atherosclerotic plaque of the aortic arch.

• Received: May 18, 2009 • Accepted: May 18, 2009

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nated from the severe atherosclerotic plaque combined with highly mobile thrombi. This RD3D TEE procedure will be-

come an important imaging modality because of high spatial resolution and real-time examination.