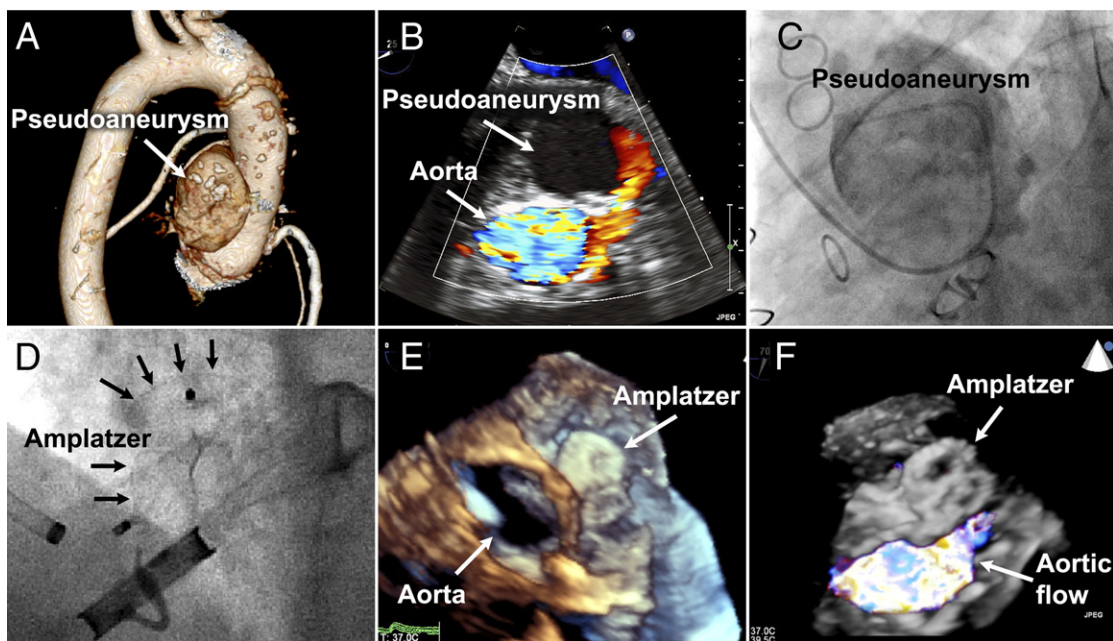


IMAGES IN CARDIOLOGY

Percutaneous Device Closure of a Large Aortic Root Graft Pseudoaneurysm Using 3-Dimensional Transesophageal Echocardiographic Guidance

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Manuscript received December 27, 2010; revised manuscript received February 21, 2011, accepted March 15, 2011.

A 59-year-old man underwent aortic root replacement with a mechanical aortic valve by means of a classic inclusion wrap Bentall procedure in 1989. He underwent repair of a leaking aortic graft pseudoaneurysm, along with triple-vessel coronary bypass, in 2006. Recent surveillance echocardiography discovered a large echolucent space posterolateral to the aortic root graft. Chest computed tomography (A) and transesophageal echocardiography (TEE) (B, [Online Video 1](#)) showed the recurrence of a large aortic pseudoaneurysm communicating with the aortic graft. The patient underwent percutaneous device closure of the pseudoaneurysm communication with a 10-mm Amplatzer septal occluder (AGA Medical Corporation, Minneapolis, Minnesota) (C, [Online Video 2](#), which demonstrates cannulation of the aneurysm with a left coronary diagnostic catheter; D, [Online Video 3](#), which shows the Amplatzer device in position). The device was in close proximity to the left main coronary artery; however, no ischemia occurred because grafts to the left coronary artery were patent. Successful placement was confirmed by 3-dimensional (3D) TEE (E, [Online Video 4](#)), with trivial residual flow seen on en-face color 3D TEE (F, [Online Video 5](#)). This case demonstrates the novel application of percutaneous device closure technology assisted by periprocedural 3D TEE imaging. (Please see [Online Videos 6, 7, and 8](#) for additional real-time TEE imaging of the guiding catheter and occluder device deployment and positioning.)