

Intimal Flap Vegetation Following Aortic Root Re-dissection

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Abstract

A 75-year-old man who had undergone ascending aorta replacement for acute Type A aortic dissection presented with a recurring high fever. Transesophageal echocardiography revealed that a vegetation had formed on the re-dissected intimal flap of the noncoronary sinus of Valsalva. This didactic case suggests that antibiotic prophylactic measures be considered for aortic dissection flaps as for irregular valves susceptible to infective endocarditis.

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Key Words

Aortic root reoperation • Aortic dissection • Vegetation

Introduction

Aortic root reoperation after aortic dissection repair, still challenging to perform, has a reported mortality rate of nearly 20% [1, 2]. Risk may be much higher when the patient's condition is complicated by infection.

Case Presentation

A 75-year-old man presented with a recurring high fever after teeth cleaning. He had undergone ascending aorta replacement for acute Type A aortic

dissection 8 years previously. The proximal and distal ascending aorta had been reconstructed with gelatin-resorcin-formalin glue. The patient had been observed closely because he had developed aortic root re-dissection and mild aortic regurgitation during the most recent 6 years.

Blood cultures were positive for *Streptococcus sanguinis*. Transesophageal echocardiography revealed mild aortic regurgitation and a 3.46-cm-long mobile vegetation that was blown back and forth with the bloodstream at the aortic root (Figure 1; see supplemental Video 1 at <http://dx.doi.org/10.12945/j.aorta.2015.15.012.vid.01>).

To prevent embolism due to the vegetation, urgent aortic root replacement (Bentall procedure) with a valved conduit (with a 24-mm Gelweave Valsalva graft; TERUMO, Tokyo, Japan and 21-mm bovine pericardial bioprosthesis Magna EASE; Edwards Lifesciences, Irvine, California, USA) was performed under cardiopulmonary bypass with femoral artery and bicaval venous cannulation. The vegetation was stuck on the intimal flap of the noncoronary sinus of Valsalva. The aortic valve leaflets were intact without vegetations. Postoperative histopathology of vegetation tissue, aortic valve, and aortic wall revealed no evidence of bacterial clusters, acute inflammation or cultures taken intraoperatively.



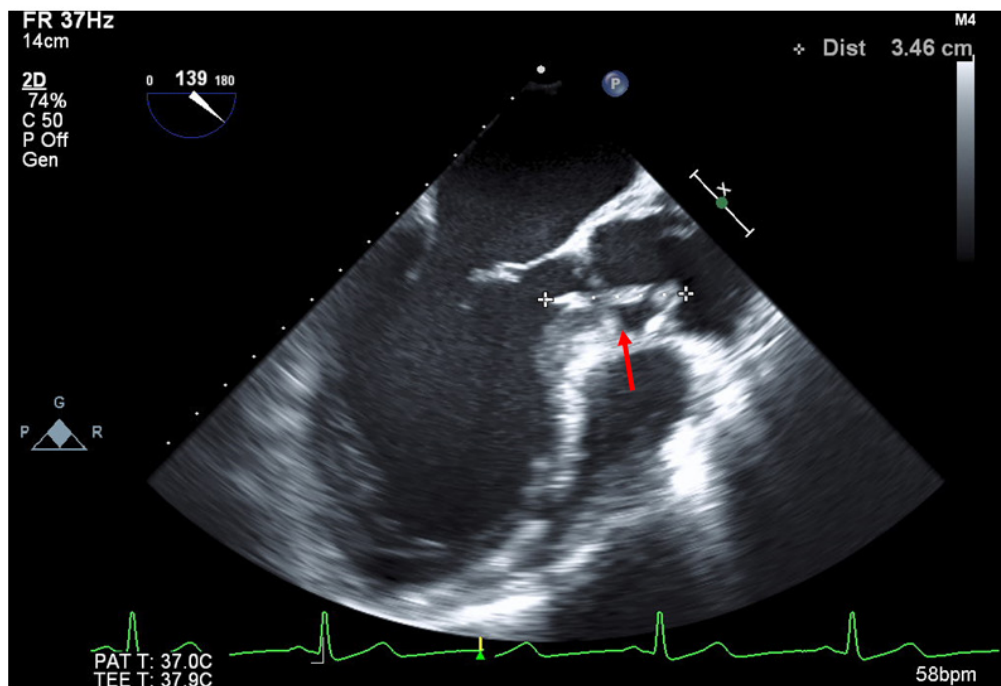


Figure 1. A 3.46-cm-long mobile vegetation attached to the intimal flap of the noncoronary sinus of Valsalva (not on the aortic valve leaflet) was blown back and forth in the bloodstream.

Although cardiopulmonary bypass was smoothly weaned, the patient developed acute respiratory distress syndrome on postoperative day 5 because of ventilator-associated pneumonia and died on postoperative day 26.

Discussion

Infective endoarteritis is a relatively rare but devastating condition. A few reports have been published about infection on an aortic dissection flap [3]. Although prophylactic procedures for native or prosthetic valve endocarditis are well established by American Heart Association and European Society of

Cardiology guidelines [4, 5], these guidelines do not mention prevention of infection for chronic aortic dissection patients. This didactic case suggests that antibiotic prophylactic measures be considered for chronic aortic dissection as for valvular infective endocarditis.

Conflict of Interest

The authors have no conflict of interest relevant to this publication.

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