A 33-year-old man presented to the hospital with shortness of breath and chest pain. He was subsequently diagnosed with Streptococcus mitis endocarditis involving the aortic valve. The initial echocardiogram revealed moderate aortic valve regurgitation and a normal mitral valve without regurgitation. The patient was treated with afterload reduction and antibiotics. Blood cultures were negative within 2 days after initiation of antibiotics. He returned to the hospital 1 month later with worsening symptoms, and a repeat echocardiogram showed worsening aortic valve regurgitation. A mitral valve aneurysm was also visualized, with moderate mitral valve regurgitation. The aneurysm was located on the anterior leaflet near the septal commissure and was due to regurgitant blood flow from the aortic valve. Because of worsening of aortic valve regurgitation and refractory symptoms, the patient was referred for surgery. The aortic valve was replaced with a No. 23 St Jude mechanical prosthesis. The mitral valve aneurysm was resected and the defect in the anterior leaflet primarily repaired. A No. 30 Baxter annuloplasty ring was also placed. Pathological evaluation of the aneurysm revealed chronic inflammation without evidence of active endocarditis. The patient recovered uneventfully and was discharged home with anticoagulation.

**Figure 1.** Initial transesophageal echocardiography showing intact mitral valve. LA indicates left atrium; LV, left ventricle.
Figure 2. Transesophageal echocardiography at second presentation revealing aneurysm in anterior leaflet. MVA indicates mitral valve aneurysm; other abbreviations as in Figure 1.

Figure 3. Color Doppler of Figure 2 showing regurgitant aortic insufficiency jet hitting mitral valve. Abbreviations as in previous figures.
Figure 4. Intraoperative photograph of mitral valve with aneurysm (MVA).

Figure 5. Intraoperative photograph of mitral valve after repair.
Figure 6. Intraoperative TEE showing repaired mitral valve with annuloplasty ring in place. Abbreviations as in Figure 1.
Mitral Valve Aneurysm Due to Severe Aortic Valve Regurgitation
Tung H. Cai, Joe M. Moody, Jr and Edward Y. Sako

Circulation. 1999;100:e53-e56
doi: 10.1161/01.CIR.100.12.e53
Circulation is published by the American Heart Association, 7272 Greenville Avenue, Dallas, TX 75231
Copyright © 1999 American Heart Association, Inc. All rights reserved.
Print ISSN: 0009-7322. Online ISSN: 1524-4539

The online version of this article, along with updated information and services, is located on the World Wide Web at:
http://circ.ahajournals.org/content/100/12/e53

Permissions: Requests for permissions to reproduce figures, tables, or portions of articles originally published in Circulation can be obtained via RightsLink, a service of the Copyright Clearance Center, not the Editorial Office. Once the online version of the published article for which permission is being requested is located, click Request Permissions in the middle column of the Web page under Services. Further information about this process is available in the Permissions and Rights Question and Answer document.

Reprints: Information about reprints can be found online at:
http://www.lww.com/reprints

Subscriptions: Information about subscribing to Circulation is online at:
http://circ.ahajournals.org/subscriptions/