

**Structural Heart?**  
It is a challenge to the skills of structural heart team, the multidisciplinary team of interventional cardiologists, cardiac surgeons, and imaging specialists.

**Heart team?**  
Working together, the heart team will provide the best possible care for the patient.

**Family?**  
The heart team will work with the family to ensure the best possible outcome for the patient.

**Structural Heart?**  
It is a challenge to the skills of structural heart team, the multidisciplinary team of interventional cardiologists, cardiac surgeons, and imaging specialists.


# Enterococcus Faecalis Infective Endocarditis Following Percutaneous Edge-to-Edge Mitral Valve Repair

Ephraim Weiss, Aeshita Dwivedi, Alan F. Vainrib, Eugene Yuriditsky, Ricardo J. Benenstein, Cezar Staniloae, Mathew Williams & Muhamed Saric


To cite this article: Ephraim Weiss, Aeshita Dwivedi, Alan F. Vainrib, Eugene Yuriditsky, Ricardo J. Benenstein, Cezar Staniloae, Mathew Williams & Muhamed Saric (2017): Enterococcus Faecalis Infective Endocarditis Following Percutaneous Edge-to-Edge Mitral Valve Repair, Structural Heart, DOI: [10.1080/24748706.2017.1372650](https://doi.org/10.1080/24748706.2017.1372650)



To link to this article: <http://dx.doi.org/10.1080/24748706.2017.1372650>

 View supplementary material 

 Accepted author version posted online: 28 Aug 2017.  
Published online: 28 Aug 2017.

 Submit your article to this journal 

 Article views: 20

 View related articles 

 View Crossmark data 



## **Enterococcus Faecalis Infective Endocarditis Following Percutaneous Edge-to-Edge Mitral Valve Repair**

Ephraim Weiss, MD<sup>a</sup>, Aeshita Dwivedi, MD<sup>a</sup>, Alan F. Vainrib, MD<sup>a</sup>, Eugene Yuriditsky, MD<sup>a</sup>, Ricardo J. Benenstein, MD<sup>a</sup>, Cezar Staniloae, MD <sup>a</sup>, Mathew Williams, MD<sup>b</sup>, and Muhamed Saric, MD, PhD<sup>c</sup>

<sup>a</sup>Leon H. Charney Division of Cardiology; <sup>b</sup>Department of Cardiothoracic Surgery, New York University Langone Medical Center, New York, New York, USA; <sup>c</sup>Noninvasive Cardiology, New York University, New York, New York, USA

An 85-year-old woman presented with severe degenerative native mitral regurgitation (MR) in the setting of preserved left ventricular ejection fraction (LVEF) of 65%. Transesophageal echocardiography (TEE) demonstrated a flail P2 scallop and she subsequently underwent percutaneous mitral valve repair with MitraClip<sup>®</sup>. Four months later, she presented with fatigue, chills, and dyspnea. Blood cultures grew *Enterococcus faecalis* sensitive to ampicillin. Repeat TEE demonstrated a 1.2 cm × 0.6 cm mobile echodensity associated with the left atrial aspect of the MitraClip<sup>®</sup> consistent with vegetation with recurrence of severe MR. Given the patient's advanced age, comorbidities, and poor functional class, surgical mitral valve replacement (MVR) was not deemed appropriate. The patient exhibited rapid clinical decline and expired shortly thereafter. A second case involves a 57-year-old man with severe degenerative native valve MR who underwent percutaneous mitral valve repair with placement of two MitraClips<sup>®</sup>. Two months later, he presented with acute decompensated heart failure. Blood cultures grew *Enterococcus faecalis* and a TEE demonstrated a new mobile echodensity on the atrial aspect of the P3 scallop and involving the medial MitraClip<sup>®</sup> consistent with vegetation. There was new, severe posteriorly directed MR with two jets. The patient was treated with 6 weeks of IV antibiotics. Several months later he had stable NYHA Class II–III symptoms with a repeat transthoracic echocardiogram showing improvement of MR and no evidence of vegetation. The first case of infective endocarditis with MitraClip<sup>®</sup> was described in 2011.<sup>1</sup> Only a few other cases of this complication have been published since. To our knowledge, these two cases

are the first documented cases of *Enterococcus faecalis* mitral valve endocarditis associated with MitraClip<sup>®</sup>.

### **Disclosure statement**

Mathew Williams is a consultant for and received research funding from Medtronic; Muhamed Saric is a member of a Philips and Medtronic speakers bureau and a member of Siemens advisory board. The other authors have nothing to disclose.

### **Supplemental videos (available online)**

**Video 1:** Corresponds to [Figure 1](#), Panels E and F. It demonstrates a vegetation (arrow) on the atrial side of the MitraClip<sup>®</sup> resulting in recurrence of severe mitral regurgitation. LA, left atrium; LV, left ventricle.

**Video 2:** Corresponds to [Figure 2](#), Panels E & F. 2D TEE demonstrates a vegetation (arrow) on the atrial side of the MitraClip<sup>®</sup> resulting in recurrence of severe mitral regurgitation. LA, left atrium; LAA, left atrial appendage; LV, left ventricle.

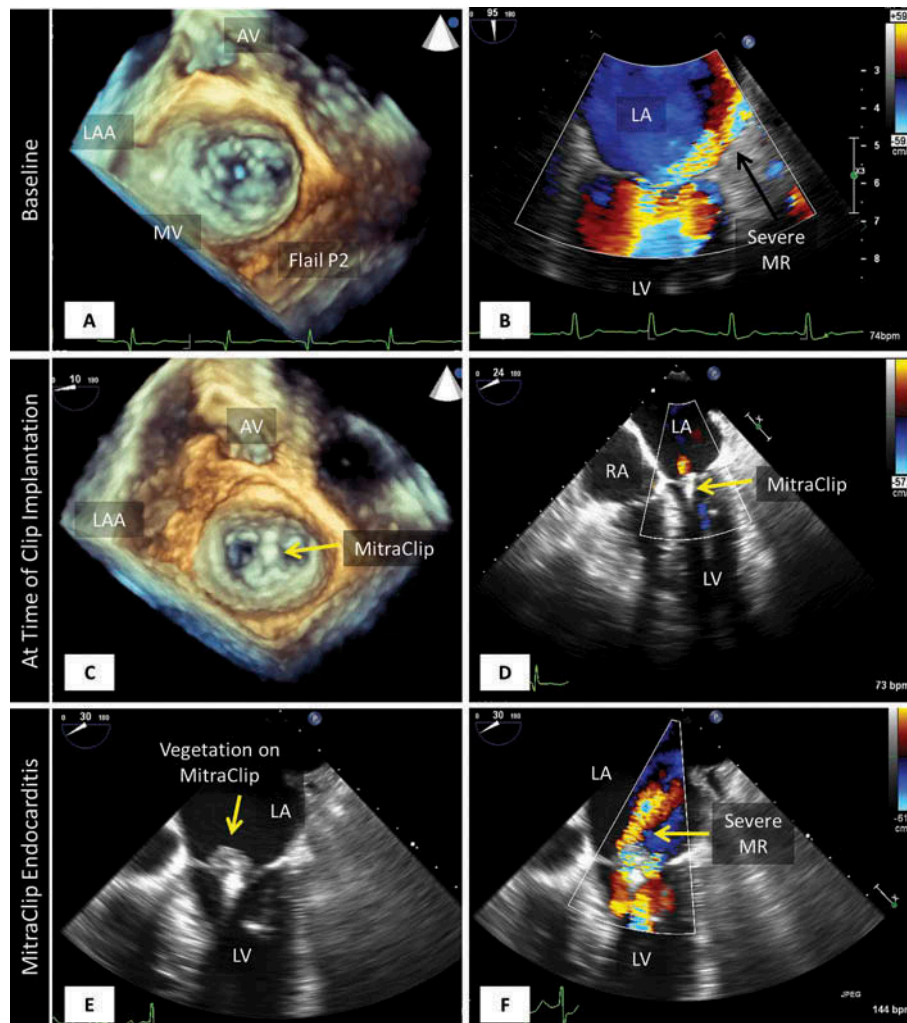
**Video 3:** Corresponds to [Figure 2](#), Panels E & F. 3D TEE demonstrates a vegetation (arrow) on the atrial side of the MitraClip<sup>®</sup> resulting in recurrence of severe mitral regurgitation. AV, aortic valve; LAA, left atrial appendage; MV, mitral valve.

### **ORCID**

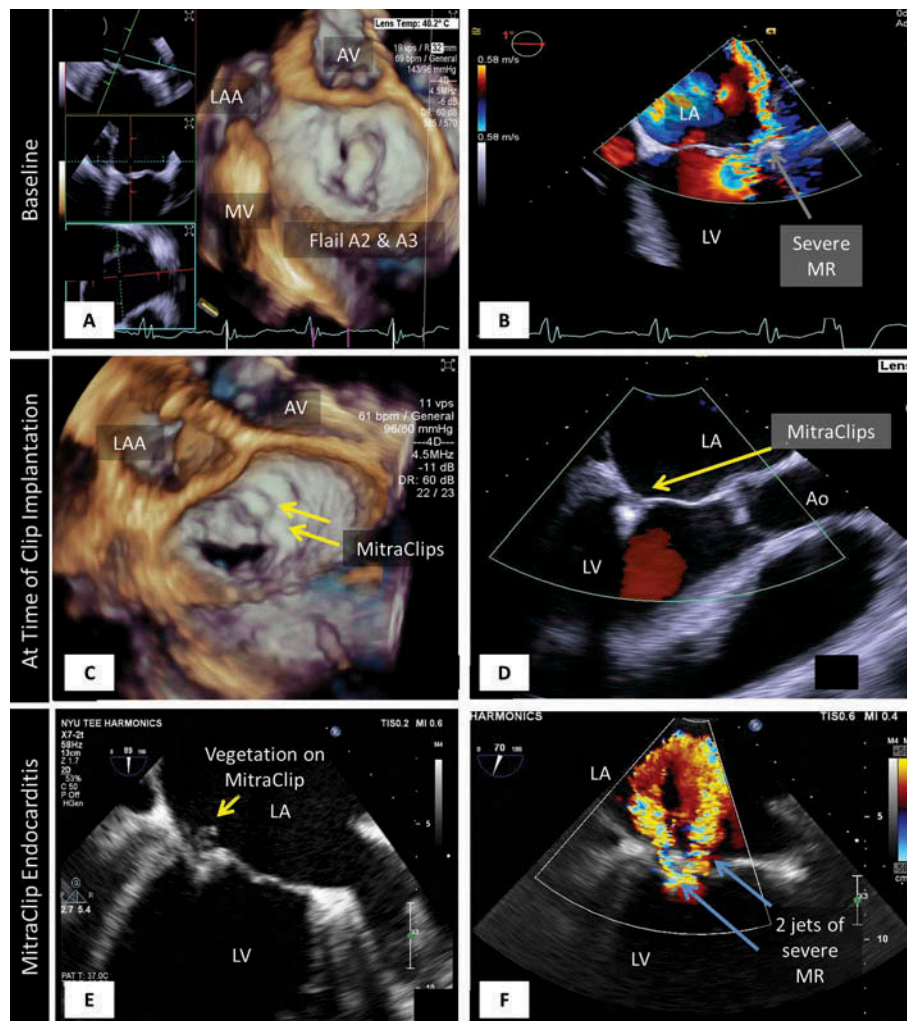
Cezar Staniloae <http://orcid.org/0000-0001-8970-8889>

### **References**

1. Kluge J-G, Hagendorff A, Pfeiffer D, Jurisch D, Tarr A. Active infective prosthetic endocarditis after percutaneous edge-to-edge mitral valve repair. *Eur J Echocardiogr.* 2011;12(9):710.



**Figure 1. Case 1.** *Baseline:* Panel A: 3D TEE image of the mitral valve from the surgical view showing a flail P2 scallop. Panel B shows the severe anteriorly directed mitral regurgitant jet. *At time of clip implantation:* Panels C and D show the MitraClip<sup>®</sup> implanted in the A2-P2 position with only trivial residual MR. *Mitraclip<sup>®</sup> Endocarditis:* Panels E and F show the vegetation on the atrial side of the MitraClip<sup>®</sup> with recurrence of severe mitral regurgitation. Abbreviations: AV, aortic valve; LA, left atrium; LAA, left atrial appendage; LV, left ventricle; MV, mitral valve; MR, mitral regurgitation; RA, right atrium.



**Figure 2. Case 2.** *Baseline:* Panel A: 3D TEE image of the mitral valve from the surgical view showing flail A2 and A3 scallops. Panel B shows the severe posteriorly directed mitral regurgitant jet. *At time of clip implantation:* Panels C and D show the two MitraClips<sup>®</sup> implanted with no residual MR. *Mitraclip<sup>®</sup> Endocarditis:* Panels E and F show the vegetation on the atrial side of the MitraClips<sup>®</sup> with recurrence of severe mitral regurgitation. Abbreviations: Ao, ascending aorta, AV, aortic valve; LA, left atrium; LAA, left atrial appendage; LV, left ventricle; MV, mitral valve; MR, mitral regurgitation.