

CLINICAL PRACTICE

Clinical Images

Coronary Artery Embolism from Large Aortic Valve Vegetation due to *Staphylococcus aureus* EndocarditisAman M. Shah, MD¹, Ricardo A. Bello, MD, PhD², and Benjamin T. Galen, MD³

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A 46-year-old man with a history of intravenous drug use presented with 5 days of fever as high as 102°F. He was ill-appearing, tachycardic, and without a heart murmur. Labs revealed marked leukocytosis and elevated troponin-T to 1.31 ng/ml (0.00–0.10 ng/ml), and blood cultures grew methicillin-susceptible *Staphylococcus aureus* 12 h after collection. Transthoracic echocardiogram showed a 4-cm mobile vegetation on the aortic valve. Troponin-T peaked the next day at 4.83 ng/ml, and while he remained free of chest pain, EKG revealed new ST-segment elevations in the anterolateral leads concerning for an acute coronary syndrome. Coronary angiogram identified 100% occlusion of both the distal left anterior descending artery (LAD) and the second diagonal branch of the LAD, consistent with coronary artery emboli (Fig. 1). The

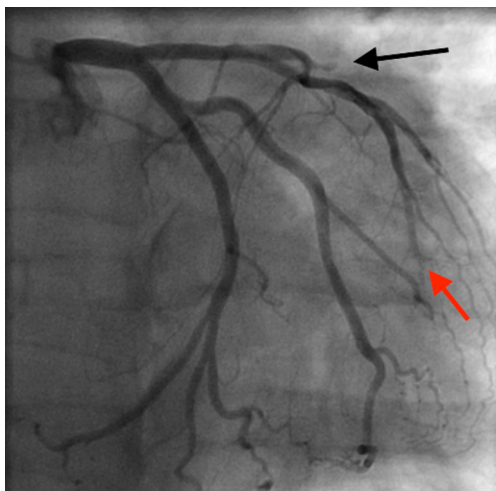


Figure 1 Coronary angiography with distal LAD (red arrow) and second diagonal branch total occlusions (black arrow).

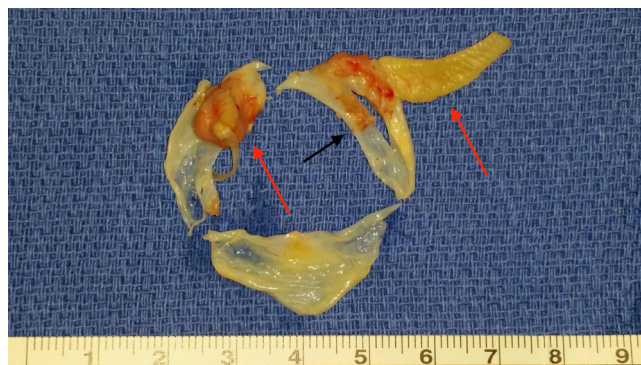


Figure 2 Aortic valve vegetations (red arrows) and perforation (black arrow).

patient underwent aortic valve replacement and a one-vessel LAD bypass. A perforated aortic valve leaflet and multiple vegetations were seen on gross examination (Fig. 2). He was treated with intravenous cefazolin for 4 weeks.

The complications of left-sided endocarditis can be fatal. Surgery may be required in cases of persistent bacteremia or septic embolization.¹ Embolism of a vegetation to the coronary arteries is rare. Treatment options include thrombectomy, angioplasty with stenting, and bypass surgery.^{2,3}

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Compliance with Ethical Standards:

Conflict of Interest: The authors declare that they have no conflict of interest and have no financial disclosures to report.

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