



Thrombosed Left Circumflex Artery Aneurysm Presenting with Syncope

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Clinical image description

A 79-year-old man with history of Coronary Artery Bypass Graft (CABG), atrial fibrillation and recent abdominal aortic aneurysm repair presented after a sudden loss of consciousness. Examination revealed a blood pressure of 130/95 mm Hg, heart rate 84 beats per minute and respiratory rate 18 per minute without any distress. On physical exam, he had bilateral rales, elevated jugular venous distension, and bilateral pitting edema. Labs were significant for Troponin T increased from 0.060 to 0.120 ng/mL (Normal \leq 0.010 ng/mL) and Pro BNP of 3,008 pg/mL (Normal range: 1-450 pg/mL). Clinically patient's presentation was consistent with acute decompensated heart failure.

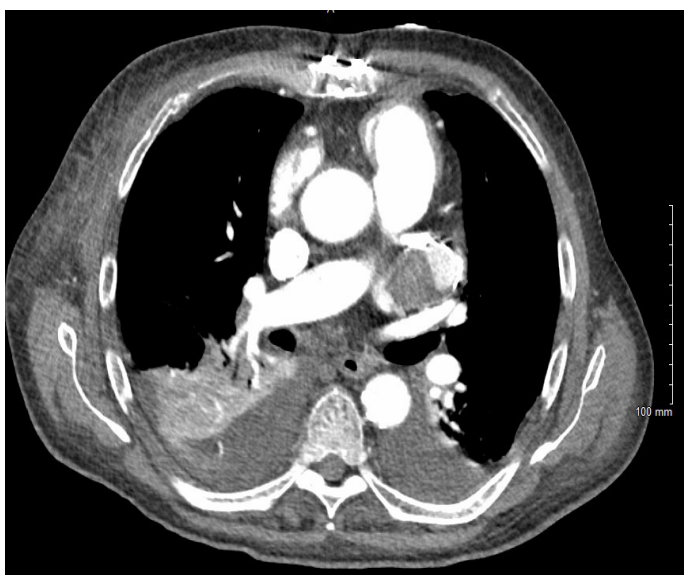
EKG was obtained showed atrial fibrillation with no specific dynamic changes. Echocardiogram revealed reduced ejection fraction and left ventricular diastolic dysfunction, bicuspid aortic valve and moderately dilated aortic root and mild dilation of the ascending aorta. Further imaging of the thoracic aorta was recommended. Contrast tomography angiography of the chest revealed coronary artery aneurysm of the left circumflex artery with mural thrombus measuring 3 cm x 3.8 cm (Figure 1). Surgical intervention was deemed risky given his overall condition. To our knowledge there has been no previously reported cases of thrombosed aneurysm in the left circumflex contributing to symptoms of heart failure or syncope as all other causes of syncope have been ruled out.



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Left circumflex aneurysm thrombosis

Left circumflex artery aneurysm is an extremely rare clinical condition which requires careful evaluation of the coronary anatomy [1]. They are seen in 1.1% to 4.9% of patients undergoing coronary angiography and in about 0.02-0.04% of the general population [2]. They are commonly located in the right coronary artery. The techniques for diagnosing include non-invasive and invasive methods, such as echocardiography, CT, magnetic resonance imaging and coronary angiography. There have been no clinical trials to determine the best therapy for these patients with thrombus formation. The pathophysiology is still unclear, and the optimal treatment remains debatable. In some cases, surgical intervention is preferred. There is lack of consensus regarding the optimal management of coronary artery aneurysm; however, guideline directed medical therapy is preferred and dual antiplatelet therapy is considered if thrombosis/embolism is a concern [3].



Disclosures

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Declaration of conflict of interest

The authors declare that they have no conflict of interest to report with respect to the research, authorship and/or publication of this case report.

Ethical approval

Our institution does not require ethical approval for reporting individual cases. This is an observational case report describing a patient's clinical course. We confirm that the manuscript has been read and approved by all named authors.

Informed consent

Verbal informed consent was obtained from the patient for their anonymized information to be published in this article.

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