

Image in cardiology

An Unexpected Cause of Myocardial Infarction



Una causa inesperada de infarto de miocardio

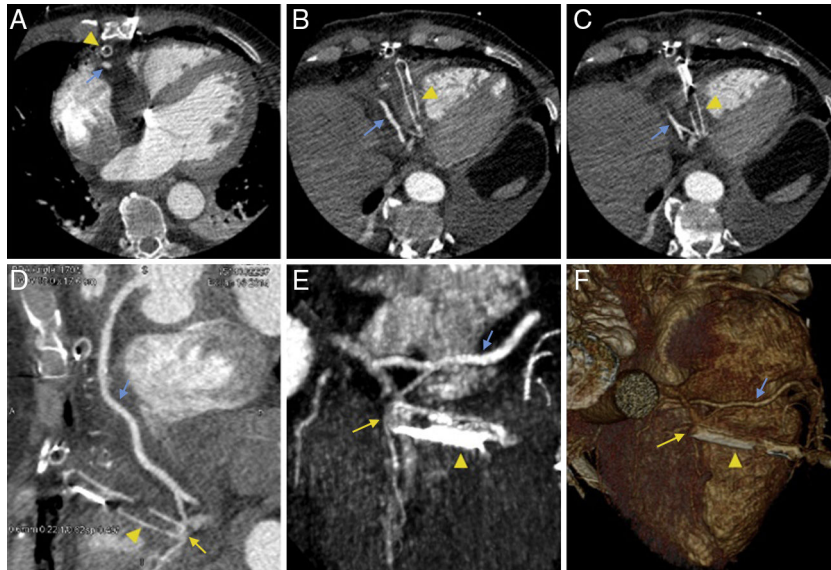
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Figure.

A 54-year-old man with a history of hypertension and bicuspid aortic valve underwent urgent aortic-valve and aortic-root replacement with a composite valved conduit (Bentall-De Bono procedure) due to type A acute aortic dissection. The surgery was uneventful but postoperatively the patient developed ST-segment elevation in inferior leads with a concomitant rise in serum troponin I (42 ng/mL). Physical examination was normal and blood pressure was 100/70 mmHg. Transthoracic echocardiography depicted inferior wall hypokinesia with a preserved left ventricular ejection fraction (Video 1 of the supplementary material). A coronary computed tomography angiography was performed in order to non-invasively exclude a possible surgical complication or coronary artery dissection involvement. This examination revealed no significant coronary artery disease. However, a retrocardiac chest drain (Figure, arrowhead) lying in-parallel along the right coronary artery path (Figure, blue arrow) had its distal end causing significant focal stenosis at the origin of the posterior descending artery (Figures D-F, yellow arrow; Video 2 of the supplementary material). The drain was immediately repositioned and the patient was discharged in a few days with no further complications.

Chest drains, which are routinely inserted after cardiothoracic surgery, have rarely been reported to cause compression of the coronary arteries. To the best of our knowledge this is the first case describing this complication as the causative mechanism of myocardial infarction. Owing to its field of view and spatial resolution, coronary computed tomography angiography is an ideal imaging technique for the depiction of coronary artery topographic relationships.

SUPPLEMENTARY MATERIAL



Supplementary material associated with this article can be found in the online version available at [doi:10.1016/j.rec.2014.07.034](https://doi.org/10.1016/j.rec.2014.07.034).

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