

Coronary arteriovenous malformation presenting with acute myocardial infarction

A patient presented to the Emergency Department with sudden-onset chest tightness associated with diaphoresis and dyspnoea. Electrocardiogram revealed ST depression over the lateral leads and cardiac enzymes were elevated, consistent with Non-ST Elevation Myocardial Infarction.

Invasive coronary angiography showed a large left main coronary artery (LM) that was aneurysmal, with thrombus near the ostium of left circumflex artery (LCx) (figure 1, see online supplementary video A). CT angiography confirmed an arteriovenous malformation (figure 2) arising from an aneurysmal LM coronary artery (see online supplementary figure S1) and draining into the right atrium (see online supplementary figure S2), with a thrombus at the proximal portion causing mild narrowing of the origin of the LCx (see online supplementary figure S3); the right coronary artery and left anterior descending artery were normal.

The patient was managed expectantly, as he was deemed unsuitable for transcatheter or surgical correction of the

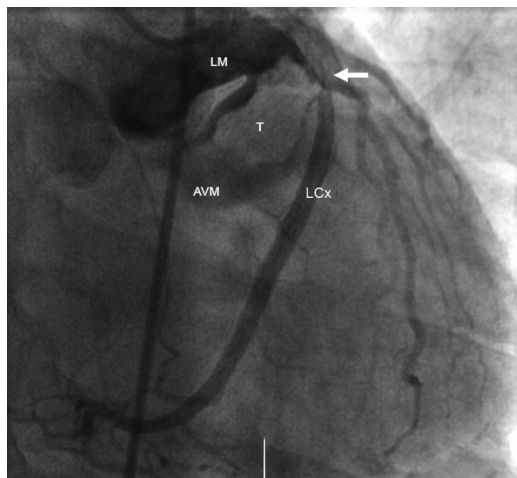


Figure 1 Invasive coronary angiogram showing aneurysmal left main coronary artery, with thrombus near the ostium of left circumflex artery. AVM, arteriovenous malformation; LCx, left circumflex; LM, left main; T, thrombus. Arrow denotes narrowing of the proximal left circumflex due to thrombus formation.



Figure 2 CT coronary angiogram illustrating the course of the arteriovenous malformation from the left main artery and draining into the right atrium. *=course of the coronary arteriovenous malformation.

coronary arteriovenous malformation in view of the torturous anatomy and the presence of a large thrombus. He was commenced on warfarin anticoagulation, and had remained asymptomatic while being followed-up for the past 3 years.

Choon Ta Ng, Aaron Wong, Foong-Koon Cheah, Chi Keong Ching

National Heart Centre Singapore, Singapore, Singapore

Correspondence to Dr Chi Keong Ching, National Heart Centre Singapore, 17 Third Hospital Avenue, Mistri Wing, Singapore 168752, Singapore; ching.chi.keong@nhcs.com.sg

Contributors CTN: involved in the preparation and planning of the manuscript, responsible for overall content of the manuscript. AW: involved in the review, and the conduct of investigations. F-KC: involved in the review, and the conduct of investigations. CKC: overall in charge of the manuscript preparation, and attending physician of the patient.

Competing interests None.

Provenance and peer review Not commissioned; internally peer reviewed.

► Additional material is published online only. To view please visit the journal online (<http://dx.doi.org/10.1136/heartasia-2012-010234>).

To cite Ng CT, Wong A, Cheah F-K, *et al.* *Heart Asia* Published Online First: [please include Day Month Year] doi:10.1136/heartasia-2012-010234

Received 21 December 2012

Revised 21 December 2012

Accepted 28 December 2012

Heart Asia 2013;0:15. doi:10.1136/heartasia-2012-010234