

Rare Manifestation of Coronary Aneurysm in Hemodialysis Patient

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Abstract

Introduction: Aneurysm of the left main coronary artery is a rare angiographic finding, as exemplified by a SLE patient with premature atherosclerosis presenting with chest pain during hemodialysis.

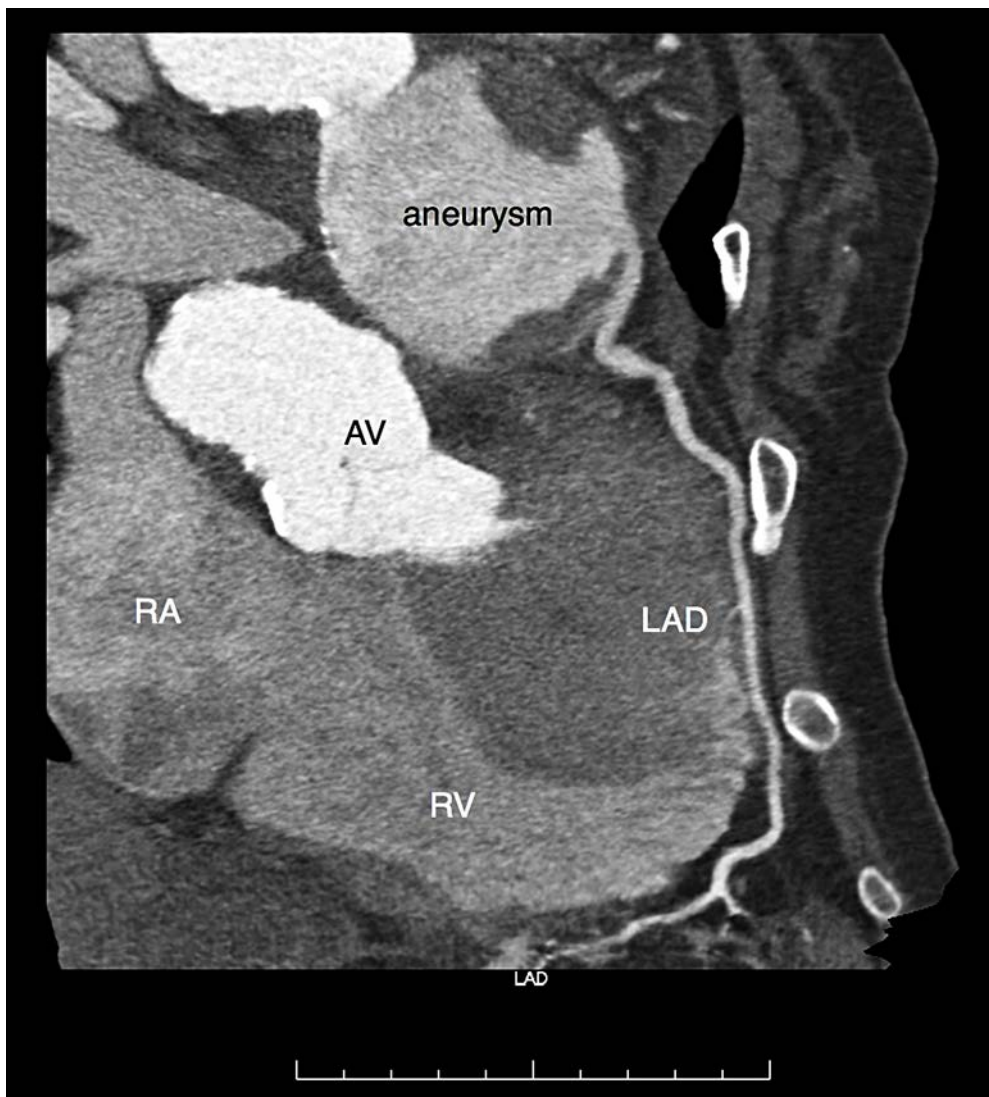
Case report: A known SLE, hypertensive and hypercholesterolemia 28-year-old female patient with 2 year history ESRD, was undergoing HD for 30 minutes when she developed a score 7 non-radiating chest pain.

Her HR was 112 /min, BP 130/80 mmHg and EKG monitoring showed multiple PVC. The 1st hs-Troponin T was 114ng/L. The initial diagnosis was acute myocardial infarction. Echocardiography revealed 30% LVEF at the expense of global hypokinesia, coronary sinus dilatation with hypoechoic mass 5x5 cm in size adjusted to AV in which this situation, was suggestive of left main coronary artery aneurysm. CXR showed moderated cardiomegaly with LA, LV enlargement without cephalization. Laboratory tests were not corroborate with SLE flaring as neither lupus anticoagulant nor was Troponin T significantly changed.

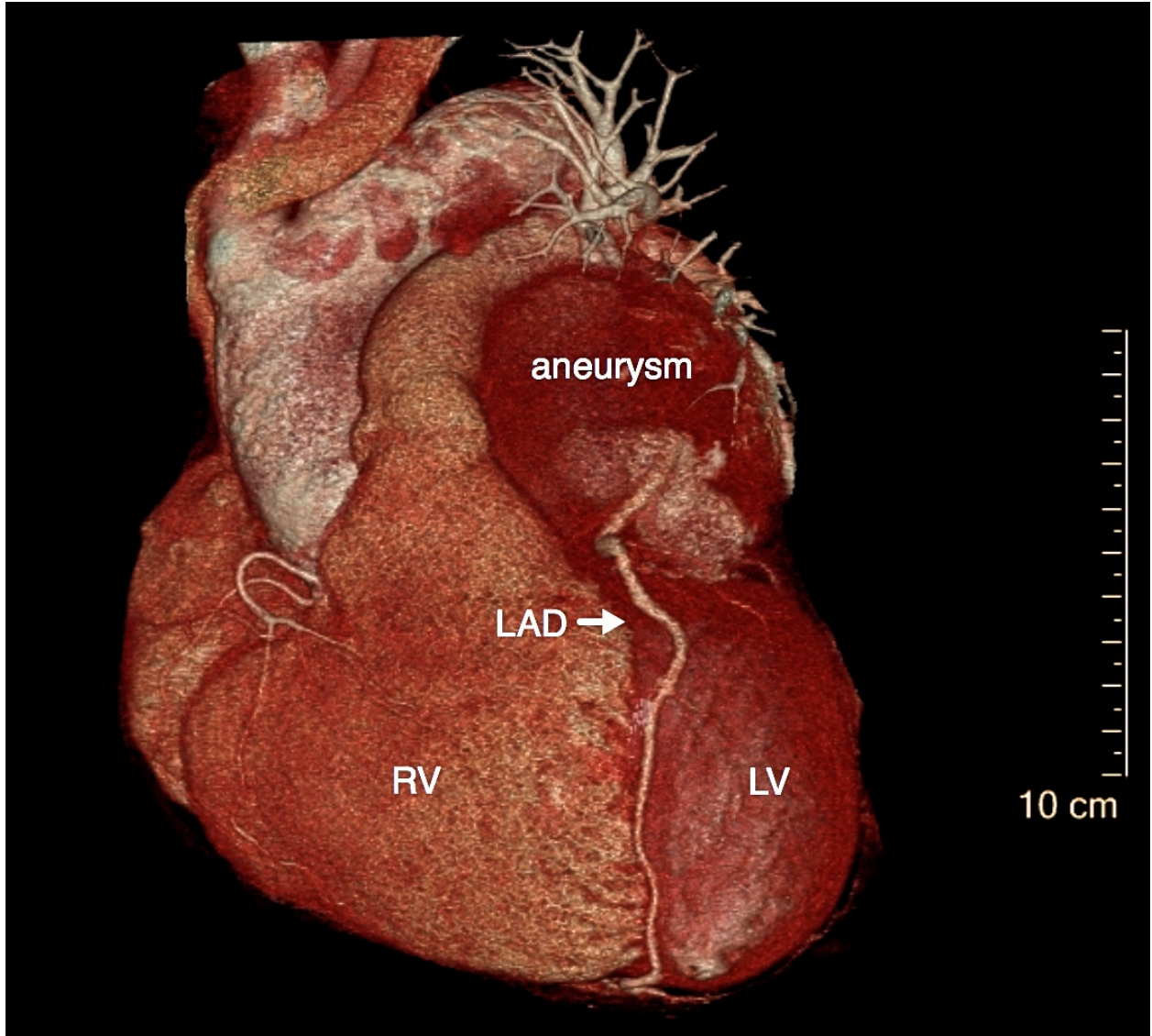
With the assumption of low blood flow to coronary sinus during HD, the coronary CTA was requested and shown in **Picture 1 and Picture 2** This patient underwent successful Modified Bentall's operation with aneurysmectomy and CABG. A large LM coronary aneurysm of 8 cm diameter with internal thrombus, calcified ostial RCA ,calcified plaques along the ascending aorta with 5 cm diameter ascending aortic aneurysm were the operative findings. The histological study revealed marked atherosclerosis with calcification at ascending aorta while intimal surfaces showed diffuse atheromatous plaque with calcification. Due to the seriousness of cardiac performance and non-significant recovery of cardiac function after surgery, she finally peacefully expired.

Conclusions: This case demonstrates myocardial infarction secondary to coronary aneurysm in HD patient, where the aneurysm was likely to have been arteritis sequelae from SLE. Premature atherosclerosis should be considered in young SLE ESRD patient.

Picture 1: Coronary CTA demonstrate large left main coronary artery aneurysm with partial thrombosis (AV=aortic valve, LAD=left anterior coronary artery, RA= right atrium, RV=right ventricle)



Coronary CTA demonstrate large left main coronary artery aneurysm with partial thrombosis (AV= aortic valve, LAD= left anterior descending coronary artery, RA= right atrium, RV= right ventricle)



Three-dimension reconstruction of a coronary CTA demonstrate large left main coronary artery aneurysm
(AV= aortic valve, LAD= left anterior descending coronary artery, RA= right atrium, RV= right ventricle)