Echocardiographic and 64-multislice computed tomographic manifestation of upside down stomach simulating a compression of the left atrium

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A 65-year-old female patient was referred for an echocardiography because of a known arterial hypertension and a mild aortic regurgitation. The patient complained about moderate precordial oppression after large meals but was otherwise asymptomatic. However, due to rheumatoid arthritis, the patient was limited in her physical ability and no stress test could be performed.

Transthoracic echocardiography displayed a large echodense mass impinging on the left atrium. A chest computed tomography (CT) was envisaged, but in view of the cardiac risk factors hypertension and hypercholesterinaemia and the inability to perform physical exercise, it was decided to scan on a 64-slice CT (64-slice VCT, GE Healthcare) including a cardiac protocol to obtain a CT coronary angiography. An upside down stomach was identified as intrathoracic mass behind the left atrium causing external compression of the latter. The CT coronary angiography excluded relevant obstructive coronary artery disease, but revealed a 50% luminal narrowing by an eccentric calcified plaque in the proximal left anterior descending.

The patient’s antihypertensive and lipid-lowering medication was unchanged and included an ACE-Inhibitor, a calcium channel blocker, a statin with an LDL target value, 2.6 mmol/L, and aspirin. The patient was also advised to continue her long-term treatment with pantozol due to gastric symptoms. At present, there is no need for a therapeutic strategy of surgical repair.

Panel A. Transthoracic echocardiography showing external compression of the left atrium by a large mediastinal mass (arrow heads). Panels B–E. Chest computed tomography scan illustrating an upside down stomach (arrow heads) causing compression of the left atrium. The included computed tomography coronary angiography reveals an eccentric calcified plaque with 50% luminal narrowing of the proximal left anterior descending (arrow). RVOT, right ventricular outflow tract; AA, ascending aorta; LV, left ventricle; LA, left atrium; RV, right ventricle.