A 63-year-old female patient with dyslipidemia and a history of an atrial fibrillation ablation procedure 4 years prior with frequent recurrence despite medical therapy presented with shortness of breath and paroxysmal atrial fibrillation to our electrophysiology clinic for a second opinion regarding repeat ablation. She denied chest pain and had been told previously that she had a normal heart aside from her ‘electrical’ problem. Electrocardiography showed sinus rhythm with unspecific T-wave changes on the anterior wall while an echocardiogram revealed a suspicious area of apical akinesis. A 64-slice computed tomography calcium score and angiography (CT) of the heart was ordered. The CT demonstrated absence of pulmonary vein stenosis, an Agatston calcium score of 339, total occlusion of the mid-portion of the left anterior descending coronary and a severely obstructive lesion of the proximal circumflex, as shown in Fig. 1. Furthermore, the left ventricular function analysis demonstrated absence of pulmonary vein stenosis, an Agatston calcium score of 339, total occlusion of the mid-portion of the left anterior descending coronary and a severely obstructive lesion of the proximal circumflex, as shown in Fig. 1. Furthermore, the left ventricular function analysis demonstrated mild LV systolic dysfunction and an apical aneurysm (Fig. 2). The patient was admitted to the hospital for further diagnosis and treatment. She underwent invasive coronary angiography, which confirmed the findings and was subsequently referred for coronary artery bypass surgery with surgical isolation of the pulmonary veins. The procedure was successful and the patient was uneventfully discharged. Follow-up reveals marked symptomatic improvement 4 months postrevascularization and aggressive risk factor intervention.
Figure 1. Image of the left coronary system by computed tomography angiography, showing the branching of the left main coronary (LM), a total occlusion on the mid-portion of the left anterior descending (LAD - white arrow) and a severe lesion of proximal left circumflex (LCX - black arrow).

Figure 2. Two-chamber views of the left ventricle in end-diastole (a) and end-systole (b), demonstrating a well depicted apical aneurysm.