A 78-year-old man with a recent diagnosis of lung squamous cell carcinoma was referred to our cardiology department for marked ECG abnormalities (ST segment elevation in V2-V4 and T wave inversion in the antero-lateral leads, Fig.1) in the absence of ischemic symptoms and for the detection of an intramyocardial mass at the apical segments on the CT scan. He had no significant previous cardiovascular history. A transthoracic echocardiogram (TTE) was performed and showed an isoechoic mass at the LV apical segments measuring 3 x 4 cm apparently incorporating the myocardial wall without a clear cleavage plane (Fig.2a). The EF was normal. No pericardial effusion present. The contrast echocardiography with Sonovue revealed a late uptake of the contrast (Fig.2b). Cardiac magnetic resonance (CMR) showed an ovular image in the para-apical area of 40 x 23 cm consistent with a secondary lesion (Fig.3). Unfortunately, the exam was interrupted early due to a patient’s claustrophobic crisis, without having acquired the post-contrast images. Due to infiltrative appearance of the mass and the oncology history, this formation was highly suspicious for metastasis. No complicated ventricular arrhythmias were detected on ECG monitoring. No symptoms of heart failure were reported. Due to the marked EKG repolarization abnormalities the patient underwent coronary angiography which excluded significant stenosis. FDG PET/CT showed areas of increased metabolism.
also at liver and adrenal left gland. Finally, the patient was transferred to the oncology department for specific management. Cardiac metastases are more common than primary cardiac malignancy and are more frequently related to primary lung cancer, followed by breast cancer and hematologic malignancies. The imaging findings of cardiac metastases are non-specific but mostly infiltrative, heterogeneous, and multiple masses may be present. Echocardiography is the initial imaging test for the detection of cardiac metastasis, although CMR, CT and PET/CT may be helpful. Herein we described a case of cardiac metastasis with EKG mimicking acute coronary syndrome. This finding is not uncommon among these patients. EKG findings of myocardial ischemia or injury, particularly localized and prolonged ST elevation, in the absence of ischemic symptoms have been reported in previous studies as high specificity for cardiac metastasis in patients with malignancy.