A 61 years old female with history of rheumatic arthritis and Sjogren Syndrom resorted to the emergency room in December of 2017 for pleuritic chest pain and dyspnea. An angioCT showed a luminal filling defect at the left inferior pulmonary artery with extension to the segmental vessels. A pulmonary embolism (PE) was diagnosed and the patient was admitted. The study performed, including transthoracic echocardiogram (TTE) was unremarkable. Patient was discharged after 15 days treated with a direct oral anticoagulant. Six months later she returned to the emergency room with the same complaints. A new angioCT showed reduction of the previous luminal filling defects, but a focal defect in the filling of the right atrium (RA) was visualized. A TTE showed a mass (17 mm) at the RA with apparent origin at the superior vena cava. A presumptive diagnostic of atrial thrombus was done and patient started therapy with vitamin K antagonist. Three months later, TTE was repeated and the mass was still present (19 mm). Five months later, the mass was still visualized at TTE (17 mm). A transesophagic echocardiogram confirmed the presence of a RA mass with 30x22 mm of major dimensions, with close relation with the interatrial septum suggestive of a tumor. A cardiac magnetic resonance revealed a RA mass without vascularization. A cardiac gated CT showed at the RA a low density nodular image of 26x22 mm at the axial plan, with an extension of 28 mm, adjacent to the posterior wall of the RA. After contrast administration, some areas did not had significant captation while some did, aspects compatible with a "pseudoenhancement" aspect. A positron tomography showed mild to moderate FDG captation at the RA. Meanwhile, patient was under anticoagulation for 2 years with no regression of the mass. For this reason, patient was oriented to cardiac surgery. The mass was resected and the histology revealed a RA myxoma.

Cardiac masses can be due to tumour, thrombus or vegetation. In this case, the mass was highly considered to be a thrombus due to the presence of multiple risk factors: prothrombotic disease and pulmonary embolism. However, the fact that the mass did not reduce with therapy raised suspicion of other diagnosis. Although myxomas can be found in the RA, and should be included in the differential diagnosis of right-sided intracardiac masses. Although myxomas are histologically benign, potential for embolization and sudden death make surgical resection a priority. Its diagnosis has now increased with the use of echocardiography, and has made it the main modality for the evaluation of myxomas. PE is the most dreaded and devastating complication of right-sided myxoma. In cases of RA myxomas, clinically evident PE events are uncommon. Nevertheless, there have been reports of embolization of thrombi or tumor fragments into the pulmonary vessels in cases of right in approximately 3.2% of myxoma patients.