A 46-year old patient, with no cardiovascular risk factors, sought treatment for frequent episodes of irregular heartbeat and stabbing chest pain, accompanied by dyspnea and nausea at rest, which was directly related with lying on his right side. In one of these episodes, we documented atrial fibrillation with a rapid ventricular response, which spontaneously reverted to sinus rhythm. The only relevant background in the patient’s medical history was hypothyroidism secondary to a thyroidectomy resulting from multi-nodular goitre. The patient was euthyroid, and received treatment with levothyroxine. A trans-thoracic echocardiogram revealed a large heteroechoic cyst-like mass behind the right atrium that was severely depressing this structure along with the left atrium, to a lesser degree (Fig. 1, video 1). A computed tomography revealed a giant aneurysm of the right coronary artery, 8 x 8.8 cm in size, with a heterogeneous density. It emerged immediately adjacent to the root of the right coronary artery and displaced and compressed both atria (Fig. 2). After confirming the diagnosis by coronary angiography (Fig. 3, video 2), the patient underwent surgical exclusion of the aneurysm and plication of the atrium (right atriotomy). The patient has had a favorable postoperative evolution, with no relevant complications.