An 80-year-old man with prior renal cancer and non-ischaemic cardiomyopathy sought care at our institution for the evaluation of obstructive jaundice. He had reported abdominal pain to his family members a few weeks previously. Trans-thoracic echocardiography performed for the evaluation of cardiomyopathy showed decreased left ventricular systolic function (ejection fraction, 19%). In addition, there was a large mass compressing the right atrium (Figure 1A). The differential diagnosis on the basis of this finding was a mass within the right atrium (benign or malignant tumours, thrombi, or infection) or mass or compression extrinsic to the right atrium. Intracardiac right atrial masses due to tumours are often myxomas, angiosarcomas, lymphomas, or renal cell carcinomas, whereas intracardiac right atrial thrombi can be due to indwelling catheters such as central venous lines or pacemakers or deep venous thrombosis with extension into the right atrium. Extrinsic compression of the right atrium can be due to mediastinal or lung tumours and diaphragmatic hernia. Less common causes of ‘right atrial mass’ include tuberculosis, fungus ball, ectopic liver, haemangiomata, hepatocellular carcinoma, pheochromocytoma, intravenous leiomyomatosis, extranodal Rosai-Dorfman disease, and an aneurysm or pseudoaneurysm of the right coronary artery or saphenous vein graft. A gastroenterologic evaluation during the patient’s visit included review of computed tomographic images obtained at an outside institution, which revealed the elevation of the right hemidiaphragm (Figure 1B and C) corresponding to the mass seen on transthoracic echocardiography. This is an unusual case of an apparent mass observed during transthoracic echocardiography that turned out to be an elevated right hemidiaphragm.

**Conflict of interest:** none declared.