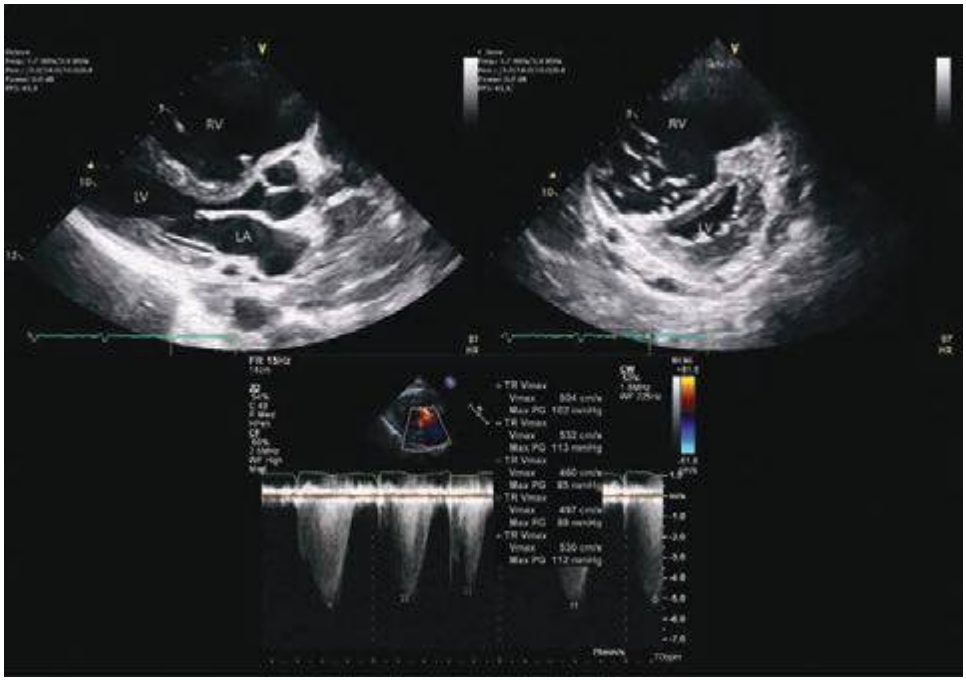

FIGURE 271e-20 **A 48-year-old woman with severe idiopathic pulmonary hypertension.** Echocardiography reveals evidence of marked right ventricular volume and pressure overload as evidenced by enlarged right ventricle (*upper left and right*), small left ventricle (*upper left and upper right*), and flattening of the interventricular septum (D-shaped septum) in systole and diastole (*upper right*). Tricuspid regurgitation velocity, which reflects the pressure gradient between the right ventricle and the left ventricle, is markedly elevated at 5 m/s, consistent with a right ventricle to right atrial pressure gradient of 100 mmHg, which is consistent with systemic right-sided pressures. LA, left atrium; LV, left ventricle; RV, right ventricle. **(See Videos 271e-18 and 271e-19.)**

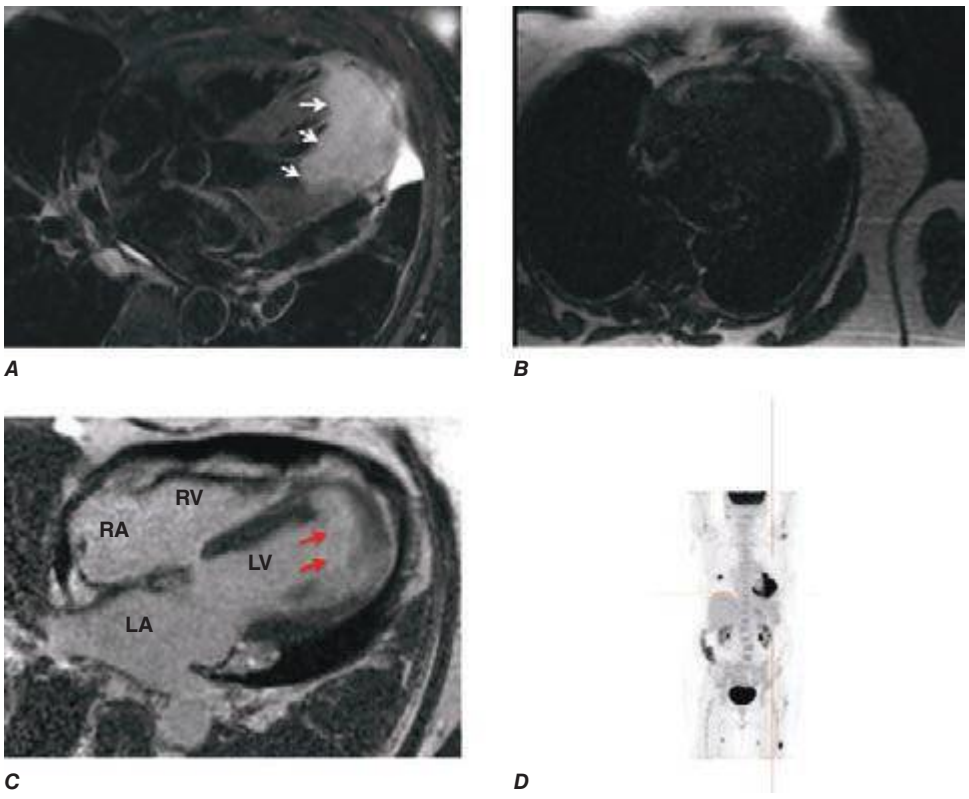

FIGURE 271e-21 **Metastatic cardiac tumor** diagnosed by cardiac magnetic resonance (MR) in a patient who presented with chest pain and inferior ST elevation. Left heart catheterization was normal. Cardiac MR demonstrates extensive myocardial edema (***A***, *white arrows*) with marked reduction in first perfusion (***B***) and accumulation of gadolinium within the cardiac mass 10–15 min after injection of gadolinium (***C***, *red arrows*). ***D.*** Positron emission tomography scan showed increased fluorodeoxyglucose uptake in a lung mass as well as in the cardiac mass, consistent with cardiac metastasis. Biopsy of the lung mass revealed adenosquamous carcinoma of the lung. LA, left atrium; LV, left ventricle; RA, right atrium; RV, right ventricle. **(See Videos 271e-20 and 271e-21.)**