A 56-year-old Caucasian female, obese (BMI: 33 kg/m²) patient presented with complaints of shortness of breath on exertion and palpitations. Her physical examination and 12-lead electrocardiogram were normal. She had mild hyperlipidemia. Transthoracic echocardiography showed normal left ventricular dimensions and systolic functions. Apical four-chamber and subcostal views demonstrated a hyperechoic mass of dumbbell or hourglass appearance in the interatrial septum (IAS) (Fig. A). Lipomatous hypertrophy was considered and transesophageal echocardiography was performed, which revealed a 37-mm thick, broad-based mass in the basal portion of the IAS. The fossa ovalis region was spared. Cardiac magnetic resonance imaging performed for further identification of expansion and characterization of the mass showed the characteristic bilobar atrial septal thickening of homogeneous high-signal intensity (Fig. B). There was no extension to the atrial free wall, nor a decrease in the flow of the caval veins or obstruction in the pulmonary veins. Twenty-four hour Holter recordings showed no rhythm disturbance. As the complaints of the patient were thought to be unrelated with lipomatous hypertrophy of the IAS, no surgical intervention was planned and she was scheduled to follow-up.

**Figures.** (A) Transthoracic echocardiogram, apical four-chamber view, demonstrates thickening of the interatrial septum. (B) Magnetic resonance imaging demonstrates dumbbell-shaped fat deposition in the interatrial septum. LA: Left atrium; LV: Left ventricle; RA: Right atrium; RV: Right ventricle.