A 73-year-old male patient was admitted to our cardiology department with complaints of exertional dyspnea and abdominal distention of 6 months’ duration. He had complained of fatigue and shortness of breath, which corresponded to New York Heart Association class III symptoms, so his physician had put him on oral diuretics.

On physical examination, his heart rate was 93 bpm. The liver was enlarged and palpable 10 cm below the right costal margin. Muffled heart sounds without murmur, venous dilatation of the extremities, neck vein distension, hepatojugular reflux, and abdominal ascites were detected. Chest x-ray showed bilateral pleural effusion but did not demonstrate a hyperdense calcific mass (Figure 1). Transthoracic echocardiography showed unclear but detected compression of right cardiac chambers, dilated inferior vena cava with reduced inspiratory collapse, mild tricuspid valve regurgitation, and an estimated right ventricular systolic pressure of 46 mm Hg, whereas the left heart system was normal. Computed tomography (Figure 2) and transesophageal echocardiography (Figure 3 and Movie I in the online-only Data Supplement) displayed a 48×46×38-mm high-density area, a cystic lesion located in the anterior mediastinum adjacent to the right cardiac chambers, and bilateral pleural effusion.

We scheduled elective surgery. He underwent pericardial resection via median sternotomy without cardiopulmonary bypass (Movie II in the online-only Data Supplement). Despite careful removal of the cyst, the right ventricle could not unfold properly as a result of local constriction. Only after local epicardectomy could the right ventricle unfold again. A cystic mass with thickened calcific fibrous tissue located anterior to the right cardiac chambers was removed, and brown fluid was aspirated. Central venous pressure and pulmonary arterial systolic pressure decreased from 33 and 66 mm Hg to 16 and 38 mm Hg.

Histopathological examination of the excised pericardial cysts revealed moderate nonspecific, noncellular inflammation, calcification, and thickened connective tissue. There was no pathogen agent. The pathological diagnosis was compatible with idiopathic constrictive pericarditis (CP). The follow-up after surgery was uneventful. At 6 months after surgery, the patient was considered to be in New York Heart Association class I.

Considering that the patient had no previous episode of cardiac trauma or surgery, mediastinal irradiation, tuberculosis, or other infectious diseases or neoplasms, he may have chronic subclinical pericardial inflammation.

CP, an uncommon entity, is characterized by an inflammatory process that leads to progressive pericardial fibrosis encasing the heart in a thickened, fibrotic pericardium.

Localized CP is rare. Only 1 case with pseudocirrhosis secondary to compression of right cardiac chambers by localized CP has been reported. This patient had a similar picture. The diagnosis of CP is often difficult to make. In fact, CP shows various symptoms, and cirrhosis-like symptoms is rare.

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Figure 1. A, A chest radiograph taken at the patient’s first visit showed bilateral pleural effusion. B, A postoperative chest radiograph showed no pleural effusion.

Figure 2. Preoperative computed tomography images. A, Horizontal view. A large calcific cystic mass is compressing right cardiac chambers. B, Axial view. C, Anterior view of the 3-dimensional reconstruction image. Top, A large calcific cystic mass and bones. Bottom, A large calcific cystic mass and a heart. D, Left lateral view of the 3-dimensional reconstruction image. Top, A large calcific cystic mass. Bottom, A large calcific cystic mass and the heart. E, Posterior view of the 3-dimensional reconstruction image.
Figure 3. Preoperative transesophageal echocardiography showed a large pericardial mass (arrow) with compression of the right ventricle (RV). LA indicates left atrium; LV, left ventricle; and RA, right atrium.
Constrictive Pericarditis With Pseudocirrhosis Secondary to Compression of Right Cardiac Chambers by Huge Calcific Pericardial Cystic Mass
Yoshihisa Morimoto, Takaki Sugimoto, Hideki Sakahira, Hiroki Arase and Kota Araki

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Movie Legend:

**Movie 1.** Preoperative transesophageal echocardiographic showed a large pericardial mass with compression of the right ventricle. Best viewed with Windows Media Player.

**Movie 2.** A video recording of surgery for a constrictive pericarditis with huge calcific pericardial cystic mass. Best viewed with Windows Media Player.