A 41-year-old Nigerian woman was admitted to our hospital complaining weakness, fatigue, chest pain, palpitations, gradual dyspnea on exertion, ascites, and pedal edema. There was no history of fever or cough. Routine blood examination results were normal, and a tuberculin test result was negative. The physical examination revealed peripheral edema, hepatomegaly, ascites, and neck veins that were grossly distended. The cardiac examination showed a normal heart size and vague distant heart sounds with a distinct pericardial knock. An electrocardiogram showed a normal sinus rhythm with a heart rate of 95 beats/min and an incomplete left bundle branch block. A chest radiograph revealed diffuse and dense calcification of the pericardium (Fig 1A, arrows). A thoracic computed tomographic (CT) scan demonstrated a calcific pericardium surrounding the entire heart (Fig 1B, arrow; Fig 1C, CT volume rendering showing calcific pericardium, arrow). Two-dimensional echocardiography confirmed severe pericardial calcification and revealed poor left ventricular ejection fraction with pulmonary hypertension. Catheterization demonstrated rapid filling and elevation and equalization of left and right ventricular and diastolic pressures at a value of 18 mmHg. She underwent, via median sternotomy without cardiopulmonary bypass, pericardial resection with electrocauterization at <60 mV to avoid causing diathermal dysfunction of the right ventricle. Histologic examination showed fibrosis, mild chronic inflammation, and calcification. During the first postoperative month, the functional capacity of the patient improved remarkably. Constrictive pericarditis, an uncommon entity, is characterized by an inflammatory process that leads to progressive pericardial fibrosis encasing the heart in a thickened and fibrotic pericardium. The most common etiology in developing countries is tuberculosis, but in industrialized nations the etiology is unclear in many cases (idiopathic constrictive pericarditis); the three most common identifiable causes are cardiac surgery, pericarditis, and mediastinal irradiation. Other possible causes include connective tissue diseases, malignancy, trauma and infections [1]. Today pericardiectomy is generally a safe procedure, although the early postoperative death risk is more than 2%. Survival rates vary from 55% to 90% on the basis of age, sex, and race [2].

References