Circumferential compression of bilateral ventricles by tuberculous granuloma leading to heart failure

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A 52-year-old man presented with exertional dyspnoea, leg oedema, distended jugular veins, and hepatomegaly. Chest radiography showed a right pleural effusion and calcification of pericardium (arrowhead, Figure A and B). Echocardiography revealed compression of the ventricles by an ill-defined mass at atrioventricular grooves (arrowhead, Figure C). Chest computed tomography (CT) showed heterogeneous mass at right lower lung and anterior mediastinal masses, pressing into lateral walls of the ventricles with dense calcification at pericardium (arrowhead, Figure D). Left ventricle (LV) angiography revealed an hourglass-shaped LV during diastolic phase, consistent with the echocardiogram and CT images (Figure E). At surgery, severe calcification of the pericardium associated with circumferential encasement of the ventricles by dense masses was found. Extensive pericardietectomy was performed with mass excision. Histopathological study revealed the masses to be tuberculous granuloma. Postoperative recovery was uneventful with patient reporting a gradual improvement in exertional dyspnoea.

Tuberculous constrictive pericarditis is not uncommon; however, tuberculous granuloma led to compression of LV and heart failure is rare. We demonstrate such a case of heart failure, which is potentially curable by surgery.