

The heart in an eggshell

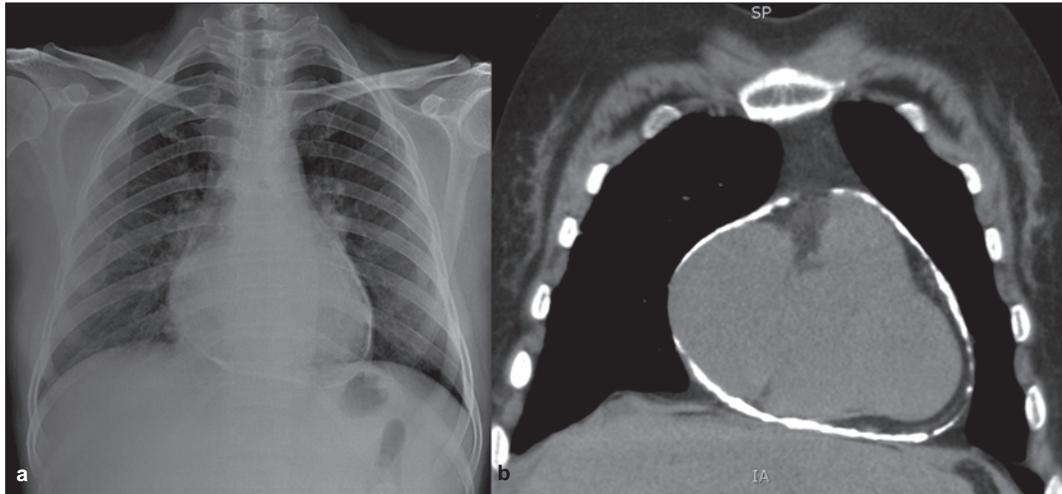


FIG 1. (a) Chest X-ray in posteroanterior projection showing a radiopaque shadow around the heart. Mild pulmonary venous congestion is evident. Distended superior vena cava is also seen, (b) Plain CT scan shows the heart almost fully encased in a calcific shell.

Video (available at www.nmji.in): Fluoroscopic projection in anteroposterior view showing a dark shadow encasing the heart (black-egg sign)

A 41-year-old woman presented with recent onset of abdominal distension and swelling of feet along with New York Heart Association Class III dyspnoea on exertion. Her blood pressure was 100/60 mmHg. The jugular venous waveforms were elevated till the angle of her jaw. The x-descent was conspicuous and the y-descent was visible. The precordium showed mild lateral systolic retraction. There was no pulmonary hypertension. ECG showed 1 mm ST depression and T inversion in inferolateral leads and no pathological Q waves. Chest X-ray revealed a radiopaque shadow around the heart (Fig. 1a). A plain CT scan of the chest showed the heart almost completely encased in a calcific shell (Fig. 1b). There was no history of tuberculosis. A diagnosis of calcific constrictive pericarditis was confirmed.¹ The coronary arteries were normal on angiography. A fluoroscopic projection at the time of coronary angiography before pericardiectomy revealed a characteristic black-egg sign (video available at www.nmji.in). The patient underwent surgical pericardiectomy with relief of symptoms and is doing well on follow-up. The use of plain anteroposterior fluoroscopic projection potentially permits a diagnosis of calcific constrictive pericarditis during coronary angiography without the need for a CT scan.

Conflicts of interest. None declared

REFERENCE

- 1 Kameda Y, Funabashi N, Kawakubo M, Uehara M, Hasegawa H, Kobayashi Y, *et al.* Heart in an eggshell: Eggshell appearance calcified constrictive pericarditis demonstrated by three-dimensional images of multislice computed tomography. *Int J Cardiol* 2007;**120**:269–72.

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