Calcific constrictive pericarditis (concretio cordis)

A 52 year old woman presented with a history suggestive of systemic venous congestion (ascites and pedal oedema) lasting more than a year. She had contracted pulmonary tuberculosis when she was 25 years old and subsequently received antituberculous treatment.

The physical examination revealed cachexia with ascites and pedal oedema, with features of systemic venous congestion. The patient was in sinus rhythm with tachycardia. Blood pressure was normal but jugular venous pressure was raised with Kussmaul’s sign. The cardiac examination showed a normal heart size and muffled heart sounds. There was a pericardial knock in diastole.

The chest x ray (lateral view) showed dense pericardial calcification (panel A) which was more evident upon thoracic computerised tomography (panel B). Echocardiographic features of constrictive pericarditis were present.

The patient underwent cardiac catheterisation. The right atrial pressure waveform showed raised mean pressures with prominent descents (panel C). Arterial pressure tracings on Valsalva manoeuvre showed a square wave response (panel D). Panel E shows simultaneous right and left ventricular pressure tracing, demonstrating an equalisation of diastolic pressures.

The patient underwent pericardiectomy. Postoperatively she had a low cardiac output from which she gradually recovered with support.