Progressive cardiac failure developed during a viral illness in a 76-year-old woman. Examination revealed marked jugular-vein distention with Kussmaul’s sign, edema of the legs, and a pericardial knock. A chest film showed mild cardiac enlargement and extensive calcifications on the anterior and inferior surfaces of the heart involving both layers of pericardium. Gated, T1-weighted, spin-echo magnetic resonance images of the heart in the transverse axial view (Panel A) and oblique sagittal view (Panel B) showed diffuse thickening of the entire pericardium, calcifications (arrows in Panel A), right atrial (RA) enlargement, a moderate amount of fluid between the two pericardial layers, and increased signal in the cavity, indicative of stasis of blood. Cine gradient-echo images in the transverse axial view (Panel C) and oblique sagittal view (Panel D) confirmed the presence of pericardial fluid (arrow in Panel D) and showed atrial enlargement as well as an abnormal “shivering” motion of the interventricular septum. Cardiac catheterization revealed a diastolic equalization of pressure in all four chambers, with a dip-and-plateau configuration. Pericardiectomy was performed and revealed partially calcified tissue without necrosis or granuloma. No mycobacterium or other organisms were found, and the patient was doing well one year after surgery. RV denotes right ventricle, LV left ventricle, and LA left atrium.

**Constrictive Pericarditis**

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