A 68-year-old woman presented with mild chest pressure typical of myocardial ischemia. The initial ECG revealed normal sinus rhythm with ST-segment elevations in leads V2 through V5 (Figure 1). Troponin T level was 3.4 ng/mL (normal <0.01 ng/mL), and creatinine kinase level was 250 U/L (normal <220 U/L). The patient underwent emergency coronary angiography, which demonstrated minimal atherosclerotic disease. However, contrast left ventriculography demonstrated marked akinesis of the mid and distal segments of all walls, with compensatory hyperkinesis of the base (Figure 2). Transthoracic echocardiography also demonstrated akinesis of the midanterior, apical septal, apical inferior, apical lateral, and apical anterior segments. The right ventricle was normal in size and function. No valvular abnormalities were observed. The patient remained clinically and hemodynamically stable during her 3-day hospitalization. Serial cardiac markers trended down. Viral titers, iron studies, thyroid function tests, and serum protein electrophoresis were noncontributory. Her discharge medications included aspirin, an ACE inhibitor, a β-blocker, and a statin. Repeat echocardiography 1 month later demonstrated complete resolution of the regional systolic dysfunction.

Tako-tsubo–like (Japanese word for octopus-catcher, Figure 3) left ventricular dysfunction is an enigmatic cardiomyopathy, characterized by marked apical asynergy in the absence of significant coronary disease. Typically, these patients are elderly women who present with mild to moderate chest pain, have ST-segment elevation in leads V3 through V6, and have a modest rise in cardiac markers. The exact etiology remains unknown, but the transient dysfunction may be secondary to microvascular spasm or regional myocarditis.

Figure 1. Twelve-lead ECG. Sinus rhythm with 1- to 2-mm ST elevation in leads V2 through V5.
Figure 2. Contrast left ventriculogram. End-diastolic (A) and end-systolic (B) left ventriculograms illustrating apical asynergy.

Figure 3. An antique tako-tsubo.
Tako-Tsubo–Like Transient Left Ventricular Dysfunction
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