An unusual cause of shock after cardiac catheterization

Tony Geoghegan, FFRRCSI; Faisal Khosa, FFRRCSI; Thara Persaud, MRCPI; David Mulcahy, MD, FRCPI; William C. Torreggiani, FFRRCSI, FFRRCS* 

Case history

A 78-year-old woman was referred to a university teaching hospital for angioplasty of a critical stenosis of the left anterior descending artery, which had been diagnosed after interpreting the results of angiography performed one day before at a district general hospital. The patient had no prior history of ischemic heart disease. She had undergone an appendectomy, and surgery for a detached retina 10 years previously. Diagnostic angiography had been performed through the right common femoral artery; therefore the approach for the angioplasty was through the left common femoral artery. The angioplasty was uneventful, and the patient received 7000 IU of heparin during the procedure.

Fifteen minutes later, she developed hypotension and bradycardia. She was immediately transferred back to the angiography suite with intravenous fluids and inotropic support, where an echocardiogram demonstrated no evidence of a pericardial effusion and a portable ultrasound demonstrated no evidence of free fluid in the abdomen. The bladder appeared displaced to the left side. Repeat coronary angiography was performed; it demonstrated a widely patent stent.

What is the most likely cause of this patient’s hypotension?

A. Contrast reaction
B. Retroperitoneal hemorrhage complicating cardiac catheterization
C. Dissection of the left anterior descending coronary artery causing cardiac ischemia
D. Cardiac tamponade

For the Answer to this Challenge, see page 133.