

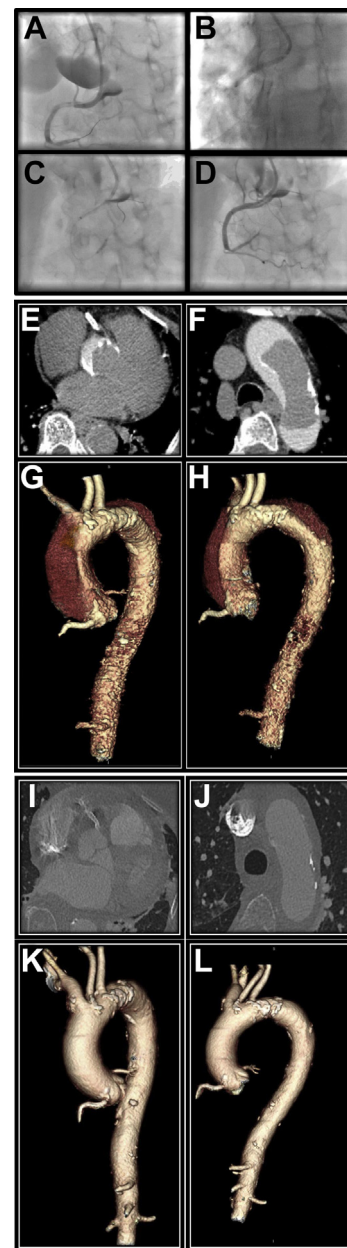
Large iatrogenic aortic dissection from percutaneous coronary intervention resolved in 4 days

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A 71-year-old woman presented with angina from distal right coronary artery (RCA) stenosis. Percutaneous coronary intervention was complicated by ostial RCA dissection that extended into the right sinus of Valsalva (A). The RCA ostium dissection flap was treated with a drug-eluting stent (B), and a Guide-Liner (Teleflex, Wayne, Pa) was advanced into the mid-RCA to permit completion of the percutaneous coronary intervention without causing further aortic damage with contrast injections (C). However, the dissection continued to propagate in the aorta (D). An emergent computed tomography scan with no additional contrast administration showed retained contrast in a dissection extending from the aortic root (E/Cover) across the arch (F/Cover; three-dimensional reconstruction, G and H/Cover). An interdisciplinary vascular team including interventional cardiology, vascular surgery, and cardiothoracic surgery recommended expectant management. On day 4, a computed tomography scan with intravenous contrast demonstrated complete resolution of the aortic dissection (I and J; three-dimensional reconstruction; K and L). The patient remained asymptomatic at the 6-month follow-up.

Iatrogenic aortic dissection (IAD) is classified into class 1 dissections, involving the sinus of Valsalva; class 2 dissections, involving less than 4 cm of the ascending aorta; and class 3 dissections, involving more than 4 cm.¹ No guidelines govern the management of IAD. Historically, patients with hemodynamic instability or class 3 dissections were managed surgically. Anecdotal experience and case reports suggest that conservative management of IAD results in good outcomes without surgery. One review of reported cases concluded that stenting to seal a coronary dissection flap improved outcomes, and that surgical intervention is usually warranted for class 3 dissections or hemodynamically unstable cases.² However, another case review recommended conservative management even in class 3 IAD.³

Our case supports the latter view, that all classes of IAD in hemodynamically stable patients may be managed conservatively. Of note, this recommendation contrasts with 2010 multisociety guidelines for managing spontaneous aortic dissection, which recommend expedient surgery if the ascending aorta is involved. Further work, including larger case series, is warranted to establish definitive guidelines for the management of IAD. The patient consented to publication of the case report above and images below.



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