Images in Anesthesia

Acute aortic dissection with intimal intussusception: transesophageal echocardiographic appearances

FIGURE 1 Midesophageal short-axis view showing a circumferential intimal dissection flap.

FIGURE 2 Five-chamber view showing the intimal flap prolapsing into the left ventricular outflow tract.

CAN J ANESTH 2008 / 55: 10 / pp 715

A 71-yr-old man presented to our emergency department, with 12 hr of chest pain and dyspnea. A computed tomography scan demonstrated the presence of a 7.4 cm ascending aortic aneurysm, type A aortic dissection, in the distal ascending aorta extending into brachiocephalic and right common carotid arteries. A transthoracic echocardiogram showed type A dissection, with intimal flap prolapsing through the aortic valve into the left ventricular outflow tract, and severe aortic regurgitation.¹ The intraoperative transesophageal echocardiography (TEE) midesophageal short axis view revealed a circumferential intimal dissection flap in the proximal ascending aorta (Figure 1). The five-chamber and midesophageal long axis views showed a large intimal flap, prolapsing into the left ventricular outflow tract, up to the tips of anterior mitral valve leaflet during diastole (Figure 2; video images available as Additional Material at: www.cja-jca.org). The TEE images highlighted the intussusception of the cylindrical flap. Severe aortic insufficiency was noted.² Surgical findings showed that the dissection started

in the mid-ascending aorta, with the dissected media and intima intussuscepting and telescoping back into the left ventricular outflow tract. The aortic valve was tricuspid and heavily calcified, with a fenestration in the noncoronary leaflet. Replacement of ascending aorta, hemi-arch, and aortic valve was performed. The patient recovered from anesthesia and surgery uneventfully, and she was discharged home on postoperative day 12.

Sophia S.F. Wong MD FRCPC
Sunnybrook Health Sciences Centre, Toronto, Canada
E-mail: sophia.wong@sunnybrook.ca
Accepted for publication April 3, 2008.

References

- 1 Whitley W, Tanaka KA, Chen EP, Glas KE. Acute aortic dissection with intimal layer prolapse into the left ventricle. *Anesth Analg* 2007; 104: 774–6.
- 2 Chow JL, Mariano ER, Liang D. Transesophageal echocardiography assessment of severe aortic regurgitation in type A aortic dissection caused by a prolapsed circumferential intimal flap. *J Cardiothorac Vasc Anesth* 2007; 21: 85–7.