Images in Anesthesia

Transesophageal echocardiographic diagnosis of a failed balloon catheter during endovascular stenting of a descending thoracic aneurysm

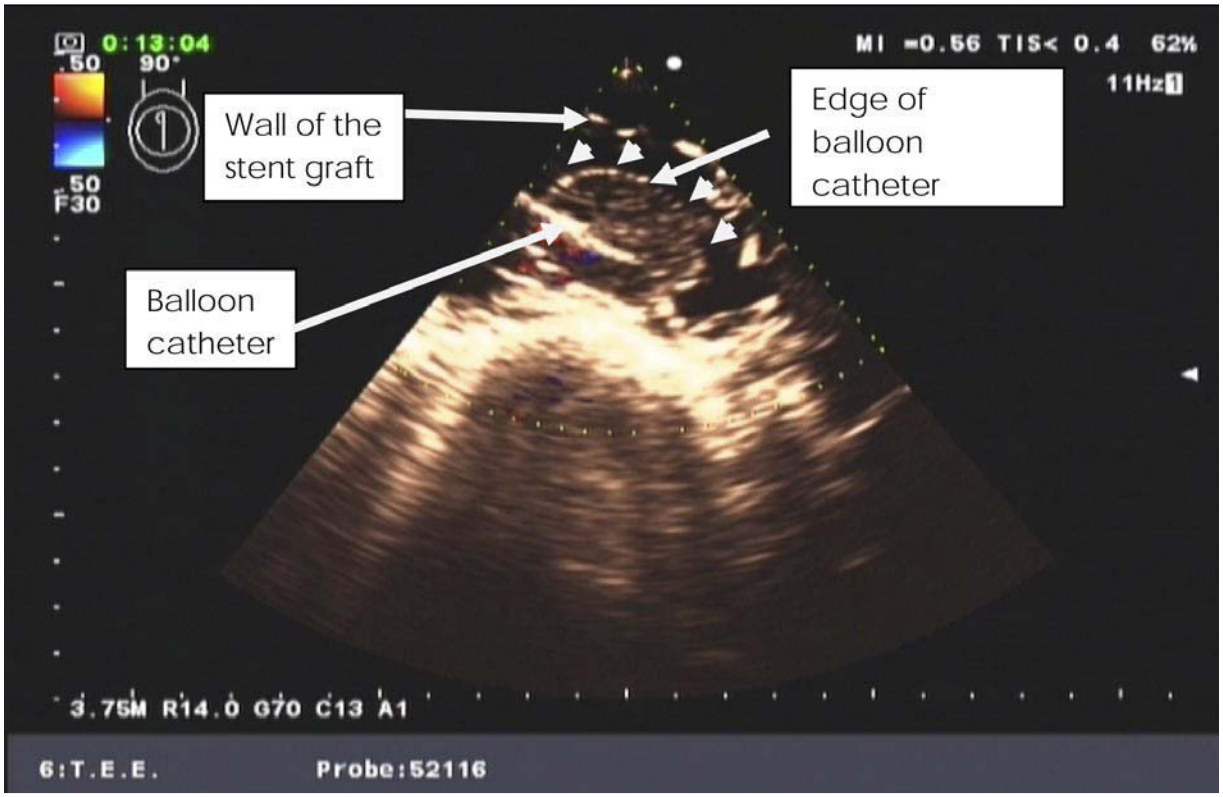

FIGURE 1 Intraoperative transesophageal image of the balloon catheter partially inflated in the descending thoracic aortic aneurysm.

A 71-yr-old female patient presented for endovascular repair of a descending thoracic aortic aneurysm. She had undergone a pervious sternotomy for repair of an aortic arch aneurysm. The preoperative computed tomography scan demonstrated a large false aneurysm (5.0 × 6.6 cm) distal to the left subclavian artery and extending caudally to the celiac artery. Following induction of anesthesia under routine monitoring, a transesophageal echocardiography (TEE) standard examination was performed.[1] The false aneurysm was identified and its size was determined. Further TEE measurements were obtained to assist stent graft deployment.

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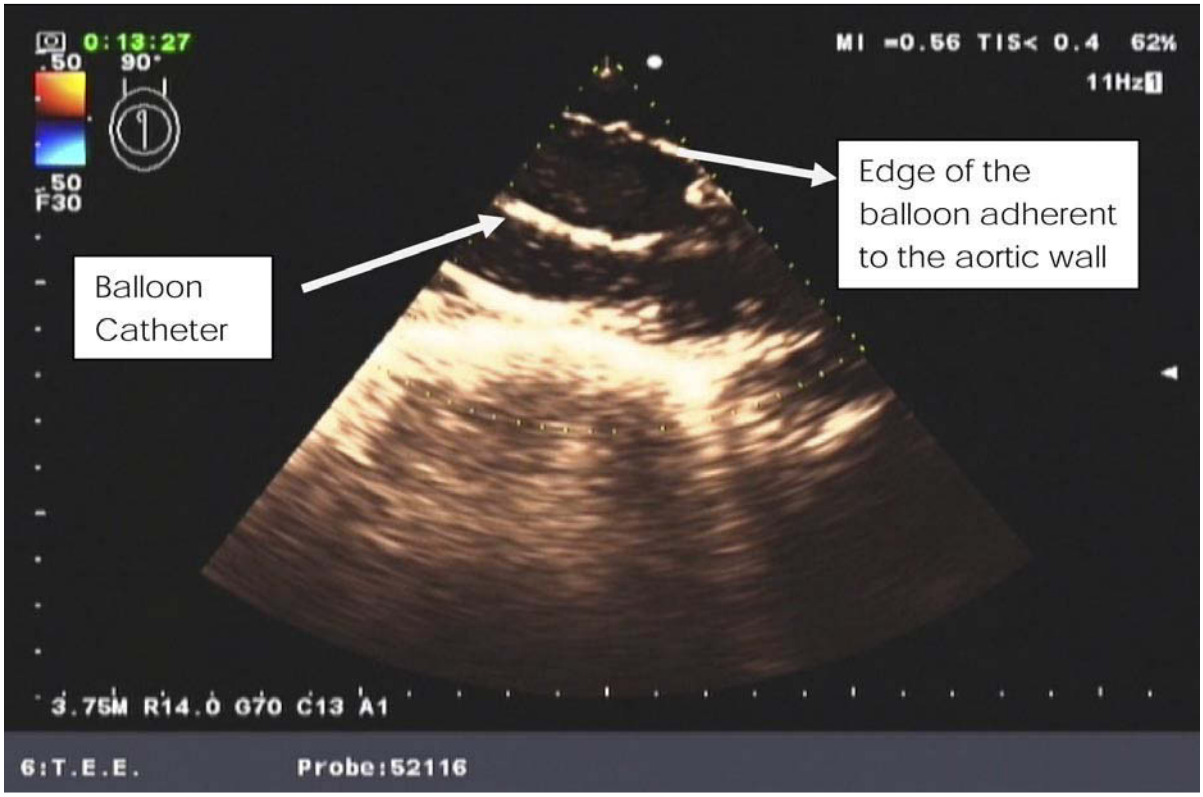

FIGURE 2 Intraoperative transesophageal echocardiographic image of the balloon catheter fully expanded within the descending thoracic aorta stent.

Femoral artery access facilitated the deployment of a stent graft distal to the left subclavian artery. A second graft overlapping the distal end of the first was required to cover the entire length of the false aneurysm. Intraoperative TEE could detect primary endoleaks at the proximal and distal ends of the grafts. A Cook Coda balloon (Cook Inc., Bloomington, IN, USA) 40 mm was inflated within the two stent grafts to achieve complete stent expansion and minimize primary endoleaks.[2] Transesophageal echocardiography images of the balloon catheter revealed incomplete expansion of the balloon during the inflation period (Figure 1). The balloon catheter was replaced, and full expansion of the balloon was achieved (Figure 2). The postoperative course was uneventful.

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References

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2 *Fattori R, Caldarera I, Rapezzi C, et al.* Primary endoleakage in endovascular treatment of the thoracic aorta: importance of intraoperative transesophageal echocardiography. J Thorac Cardiovasc Surg 2000; 120: 490–5.