References

1. Pape LA, Awais M, Woznicki EM, Suzuki T, Trimarchi S, Evangelista A, et al. Presentation, diagnosis, and outcomes of acute aortic dissection: 17-year trends from the International Registry of Acute Aortic Dissection. *J Am Coll Cardiol*. 2015;66:350-8.
2. Criado FJ. Aortic dissection: a 250-year perspective. *Tex Heart Inst J*. 2011;38:694-700.
3. Follisa F, Filipponea G, Stabile A, Montalbanoa G, Florianod M, Finazzoc M, et al. Endovascular graft deployment in the false lumen of type B dissection. *Interact Cardiovasc Thorac Surg*. 2010;10:597-9.
4. Zhang R, Kofidis T, Baus S, Klima U. Iatrogenic type A dissection after attempted stenting of a descending aortic aneurysm. *Ann Thorac Surg*. 2006;82:1523-5.
5. Watanabe Y, Kuratani T, Shirakawa Y, Torikai K, Shimamura K, Sawa Y. Hybrid endovascular repair of a dissecting thoracoabdominal aortic aneurysm with stent graft implantation through the false lumen. *J Vasc Surg*. 2014;59:264-7.
6. Huang JH, Liu GQ, Wang W, Wang XW. Stent graft implantation through the false lumen in a Stanford B aortic dissection. *Chin J Vasc Surg*. 2010;2:244-6.
7. Husmann M, Federer J, Keo HH, Schmidli J, Kickuth R, Baumgartner I, et al. Bailout Revascularization of chronic femoral artery occlusions with the new Outback Catheter following failed conventional endovascular intervention. *J Endovasc Ther*. 2009;16:206-12.
8. Joung B, Ko YG, Park SH, Lee DY, Jang Y, Lim SH, et al. Expanding false lumen in the abdominal aorta 5 years after endovascular repair of a type B aortic dissection: successful exclusion of 3 distal re-entry sites. *J Endovasc Ther*. 2004;11:577-81.
9. Zhao J, Sai LK, Bin XH. Combined use of bare stent and coils in the treatment of aortic dissection with distal tear at celiac trunk. *Natl Med China*. 2012;92:3333-6.
10. Kölbel T, Diener H, Larena-Avellaneda A, Debus S. Advanced endovascular techniques for thoracic and abdominal aortic dissections. *J Cardiovasc Surg (Torino)*. 2013;54(1 Suppl 1):81-90.
11. Midulla M, Renaud A, Martinelli T, Koussa M, Mounier-Vehier C, Prat A, et al. Endovascular fenestration in aortic dissection with acute malperfusion syndrome: immediate and late follow-up. *J Thorac Cardiovasc Surg*. 2011;142:66-72.

EDITORIAL COMMENTARY

Endovascular rescue for complications during endovascular repair of type B dissection

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Acute aortic dissections are a challenging problem for cardiothoracic surgeons. Whereas traditionally an open repair has been needed, endovascular techniques are increasingly being used. In this issue of the *Journal*, Ma and colleagues¹ report an endovascular approach to correcting blood flow after inadvertent deployment of a thoracic endovascular aortic repair stent graft in the false lumen. They report a multistage approach to solving this misadventure in an endovascular manner and provide some “how-to” technical advice about which catheters and endovascular devices they used in their successful fenestration of the aortic false lumen.

Ma and colleagues¹ are to be congratulated for disclosing their intraoperative misadventures. Not only do they report the deployment of the device in the false lumen, they also report the stent graft migration that occurred during a later procedure. And herein lies the value of this report—how to get out of this problem *endovascularly*. Fortunately, it

appears that the patient in the case report did well postoperatively.

This article has broader implications about the appropriate application of endovascular technologies of type B dissections. Historically, the majority of patients with type B dissections have been managed nonoperatively with continued surveillance, with immediate operative intervention reserved for patients with symptoms, those

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Central Message

Endovascular procedures can have serious complications. This technology, like all others, should be applied appropriately.

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with evidence of malperfusion, or those with impending rupture.

The issue under consideration is an increasing tendency for more endovascular intervention because of the perceived lower risk of endovascular surgery on the basis of its lesser invasiveness for the patient. The patient in this case report appeared to have had an impending rupture and thus a complicated dissection, warranting immediate repair. Despite the complications described and multiple procedures required for a satisfactory outcome, the patient did well. Let us not forget that the open repair for type B dissections can also be morbid and have its own complications. In general, however, complications for emergency or urgent procedures (whether open or endovascular) are more easily “accepted” because of the severity of patient

illness. If, on the other hand, a patient should experience the type of complications described by Ma and colleagues¹ during treatment of an uncomplicated type B dissection, this would be very concerning, especially in light of other investigators’ reports of excellent survival in patients with type B dissections treated nonoperatively.²

References

1. Ma X, Fu W, Ma YT, Zhao J, Karmacharya U. Successful endoluminal rescue of an endovascular graft unintentionally deployed in the false lumen of Stanford type B aortic dissection. *J Thorac Cardiovasc Surg*. 2016;151:e41-5.
2. Charilaou P, Ziganshin BA, Peterss S, Rajbanshi BG, Rajakaruna C, Zaza KJ, et al. Current experience with acute type B aortic dissection: validity of the complication-specific approach in the present era. *Ann Thorac Surg*. October 27, 2015 [Epub ahead of print].