

Commentary on “Medical and Surgical Management of a Descending Aorta Penetrating Atherosclerotic Ulcer and Associated Ascending Intramural Hematoma” by Henn, M.C. et al.

Gilbert R. Upchurch, Jr, MD^{1*}, William H. Muller, Jr²

¹Vascular and Endovascular Surgery, University of Virginia, Charlottesville, Virginia; and ²Molecular Physiology and Biological Physics, University of Virginia, Charlottesville, Virginia

Dear Editor:

Henn et al. [1] have nicely described a case scenario whereby a penetrating atherosclerotic ulcer (PAU) of the descending aorta extends with intramural hematoma (IMH) into the ascending aorta. For those of us who manage a lot of acute aortic pathology, this clinical scenario occurs not that infrequently. Based on the dictum that all type A pathology is treated first, the question is whether these patients should be managed by replacement of their ascending aorta first with subsequent repair of their PAU at a later date. Should the ascending be repaired and then insert an endograft distally in an open technique in the same setting? Or should we do as the authors have suggested: just treat the PAU with a covered stent endograft in the descending thoracic aorta? Surprisingly, there is little literature or data to help us manage this clinical scenario.

In the present case report, the authors describe a case in which a stent graft was placed in the descending thoracic aorta with subsequent resolution of the ascending aortic IMH. I personally have done this before, as well, with mixed results. There are multiple questions that remain unresolved about this scenario (and others I am

sure our readers have asked). For example, does one balloon the endovascular prosthesis that was used to treat the PAU? Is it safe to carry a wire over into the arch and ascending aorta? What is the risk of creating a true type A dissection in these patients? Finally, what are the criteria for a spinal drain in these cases?

One might also ask the authors what was their plan, had the IMH in the ascending aorta progressed to a full blown dissection both acutely and chronically; a reverse elephant trunk with repair of the arch, or just repair of the ascending aorta? Does having a stent graft in place change the management of these complex patients and almost ensure that circulatory arrest is required to remove the stent graft placed for a PAU?

I am reminded of two things in particular associated with this case, as the technical performance of an endograft in this position is not difficult. However, as a vascular surgeon, it would be imperative that I have a thorough discussion of this case with my cardiac surgery partners before taking a case like this one on (no matter how technically easy it is!). Second, I remember when Drs. Mike Deeb and Dave Williams at the University of Michigan

started treating all of the type A dissection patients with malperfusion by fenestration and stenting first, prior to taking the patients to the operating room for their type A repair. At the time, this approach was believed to be heresy by some. Yet, they persevered and many patients were saved with renal, mesenteric, and spinal arteries perfused (i.e., few patients with dead gut, on dialysis, or paralyzed) with nearly identical improved mortality rates compared to those patients who were just taken straight to the operating room with malperfusion. It should give us all pause to think that maybe just treating the PAU in the present scenario was the right thing to do. Congratulations to the authors.

Conflict of Interest

The authors have no conflict of interest relevant to this publication.

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Reference

1. Henn MC, Lawrance CP, Braverman AC, Sanchez L, Lawton JS. Medical and surgical management of a descending aorta penetrating atherosclerotic ulcer and associated ascending intramural hematoma. *Aorta* 2014;2(2):77–81. [10.12945/j.aorta.2014.13-060](https://doi.org/10.12945/j.aorta.2014.13-060)

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