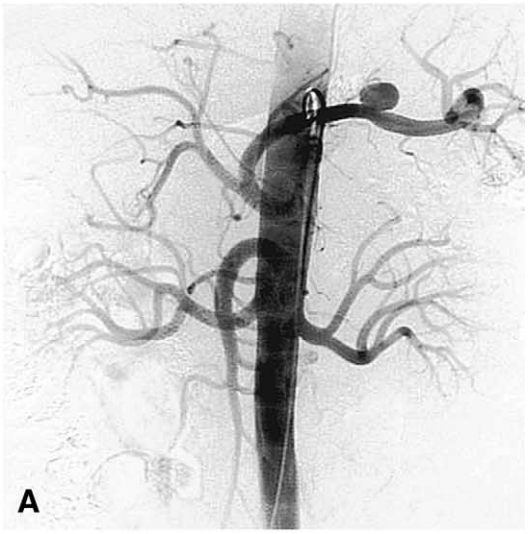
Stent-graft repair of a splenic artery aneurysm

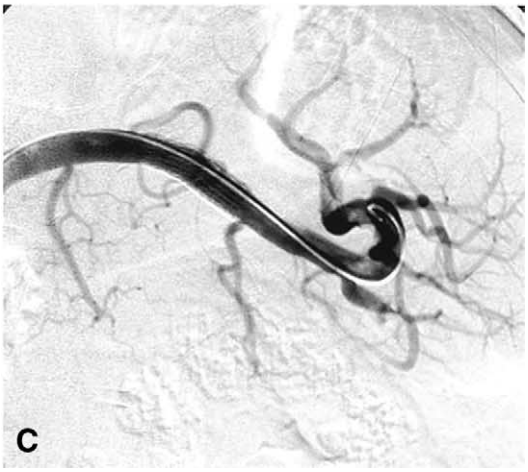
Hunter R. Moyer, BS, Jade S. Hiramoto, MD, Mark W. Wilson, MD, Praveen Reddy, MD, Louis M. Messina, MD, and **Darren B. Schneider, MD,** *San Francisco, Calif*

A 38-year-old man with an 8-month history of left flank pain was found on computed tomography to have a 1.5-cm saccular aneurysm in the splenic artery. The history was otherwise remarkable only for intermittent nausea and vomiting over the past year. An aortogram showed a wide-necked saccular aneurysm in the mid portion of a large and nontortuous splenic artery (A). Because of the anatomy of the artery, the location of the aneurysm, and the patient's desire to avoid an open operation, he was considered an ideal candidate for endovascular therapy.

Endovascular repair of the splenic artery aneurysm was performed with local anesthesia and conscious sedation, with a self-expanding stent-graft. The splenic artery was catheterized selectively with a 5F Cobra Catheter (Cook Inc, Bloomington, Ind) over a 0.035-inch hydrophyllic wire, and an arteriogram was performed (B). The glide wire was exchanged for an Amplatz wire, and a 10F Flexor sheath was advanced into the splenic artery. An 8 × 25-mm Viabahn stent-graft (W. L. Gore, Flagstaff, Ariz) was deployed within the splenic artery and dilated with a 7-mm balloon. The total procedure time was 1 hour. A completion angiogram (C) and a postprocedure computed tomographic angiogram (Cover) revealed proper stent-graft placement with complete exclusion of the aneurysm and preservation of all splenic artery branches. The patient was discharged home the following day.

Conventional repair of visceral artery aneurysms requires either surgical resection or aneurysmorrhaphy. The classic endovascular approach entails coil embolization of the aneurysm or the splenic artery. Placement of coils into the aneurysm would have been difficult because of the wide neck, and splenic artery embolization may have resulted in splenic infarction. Treatment of splenic artery aneurysms with Jostent (Abbott, Abbott Park, Ill) and Wallgraft (Boston Scientific, Natick, Mass) stent-grafts has been reported previously, with excellent short-term results.[1,2] In patients with suitable anatomy, stent-grafts allow visceral aneurysm exclusion with preservation of arterial patency. If this approach proves durable and reproducible, stent-grafts may become the method of choice for endovascular treatment of high-volume-flow visceral artery aneurysms in selected patients.





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From the Division of Vascular Surgery, University of California.
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