

Giant fusiform splenic aneurysm with anomalous origin

Gianmarco de Donato, MD, Edoardo Pasqui, MD, Claudia Panzano, MD, Giuseppe Galzerano, MD, and Giancarlo Palasciano, MD, *Siena, Italy*

An 80-year-old man was admitted to our emergency department for acute left lower limb ischemia due to thrombosis of a popliteal aneurysm. During preoperative screening, a computed tomography scan revealed bilateral popliteal aneurysms and a giant true aneurysm of the splenic artery (5.2×10 cm). In particular, the splenic artery had an anomalous isolated origin from the supraceliac aorta (A), and the aneurysm had an unusual fusiform shape (B, a), with diffuse partial thrombosis and severe distal angulation close to the splenic hilum.

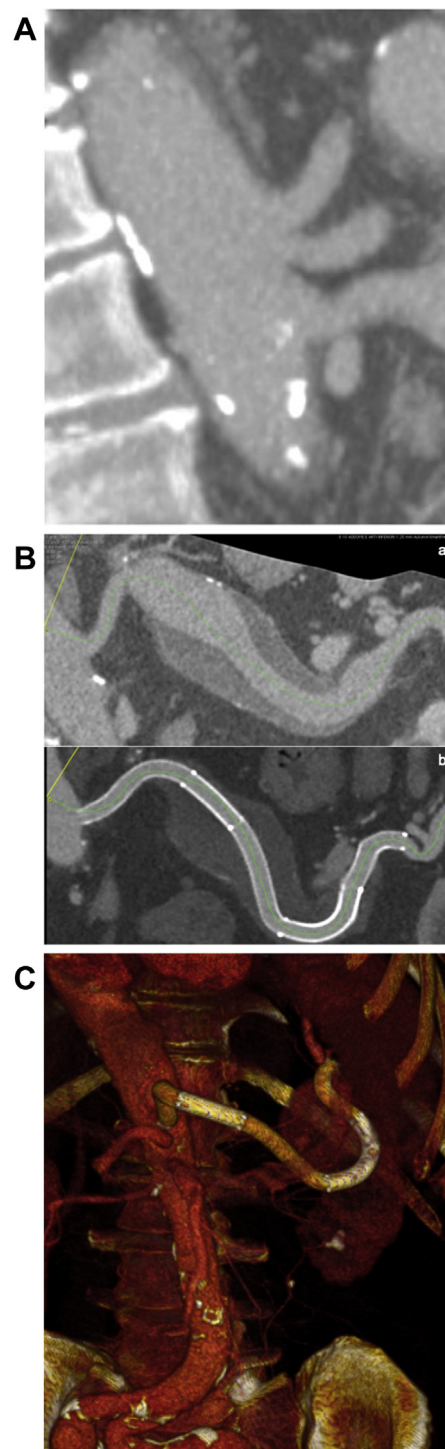
An emergency left femoropopliteal saphenous vein bypass was performed with resolution of the acute limb ischemia. Three days later, he underwent complete splenic aneurysm exclusion with implantation of three covered stents (from distal to proximal neck: Viabahn 7/100 mm, Viabahn 8/150 mm, and Viabahn 8/100 mm; W. L. Gore & Associates, Flagstaff, Ariz) through a percutaneous right femoral approach. Computed tomography scan obtained 3 years after surgery revealed excellent patency of the stent grafts with complete splenic aneurysm exclusion and a sac shrinkage of 1 cm (B, b, and C/Cover).

Patients with giant splenic aneurysm (defined as true aneurysm >5 cm) have been described previously,¹ but most (92%) were saccular aneurysms, and an anomalous origin from the aorta was not previously described. A systematic review of the anatomic variations of the celiac trunk identified 12 studies for a total of 2138 patients. Only three (0.14%) presented with an isolated origin of splenic artery from the aorta.²

In our patient, the isolated origin of the splenic artery created a favorable proximal neck for endovascular repair, whereas the challenge of an endovascular repair was the severe angulation of the distal splenic artery.

Implantation of polytetrafluoroethylene stent grafts for visceral aneurysm have been reported with satisfying midterm and long-term outcomes in terms of artery patency and aneurysm exclusion.³

The patient has consented to the publication of this manuscript.



From the Department of Vascular and Endovascular Surgery, University of Siena.

Author conflict of interest: none.

E-mail: dedonato@unisi.it.

The editors and reviewers of this article have no relevant financial relationships to disclose per the Journal policy that requires reviewers to decline review of any manuscript for which they may have a conflict of interest.

J Vasc Surg Cases and Innovative Techniques 2020;6:444-5

2468-4287

© 2020 The Author(s). Published by Elsevier Inc. on behalf of Society for Vascular Surgery. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

<https://doi.org/10.1016/j.jvscit.2020.06.006>

REFERENCES

1. Hamid HK, Suliman AE, Piffaretti G, Spiliopoulos S, Tetreau R, Tozzi M, et al. A systematic review on clinical features and management of true giant splenic artery aneurysms. *J Vasc Surg* 2020;71:1036-45.e1.
2. Santos PV, Barbosa AB, Targino VA, Silva NA, Silva YC, Barbosa F, et al. Anatomical variations of the celiac trunk: a systematic review. *Arq Bras Cir Dig* 2018;31:e1403.
3. Venturini M, Marra P, Colombo M, Panzeri M, Gusmini S, Sallemi C, et al. Endovascular repair of 40 visceral artery aneurysms and pseudoaneurysms with the Viabahn stent-graft: technical aspects, clinical outcome and mid-term patency. *Cardiovasc Intervent Radiol* 2018;41:385-97.

Submitted May 3, 2020; accepted Jun 5, 2020.