

Endovascular Infrarenal Pseudoaneurysm Relining Following Prior Hybrid Right Ileo-Femoral Reconstruction, Aortic Stent Graft Placement, and Femoral-Femoral Bypass

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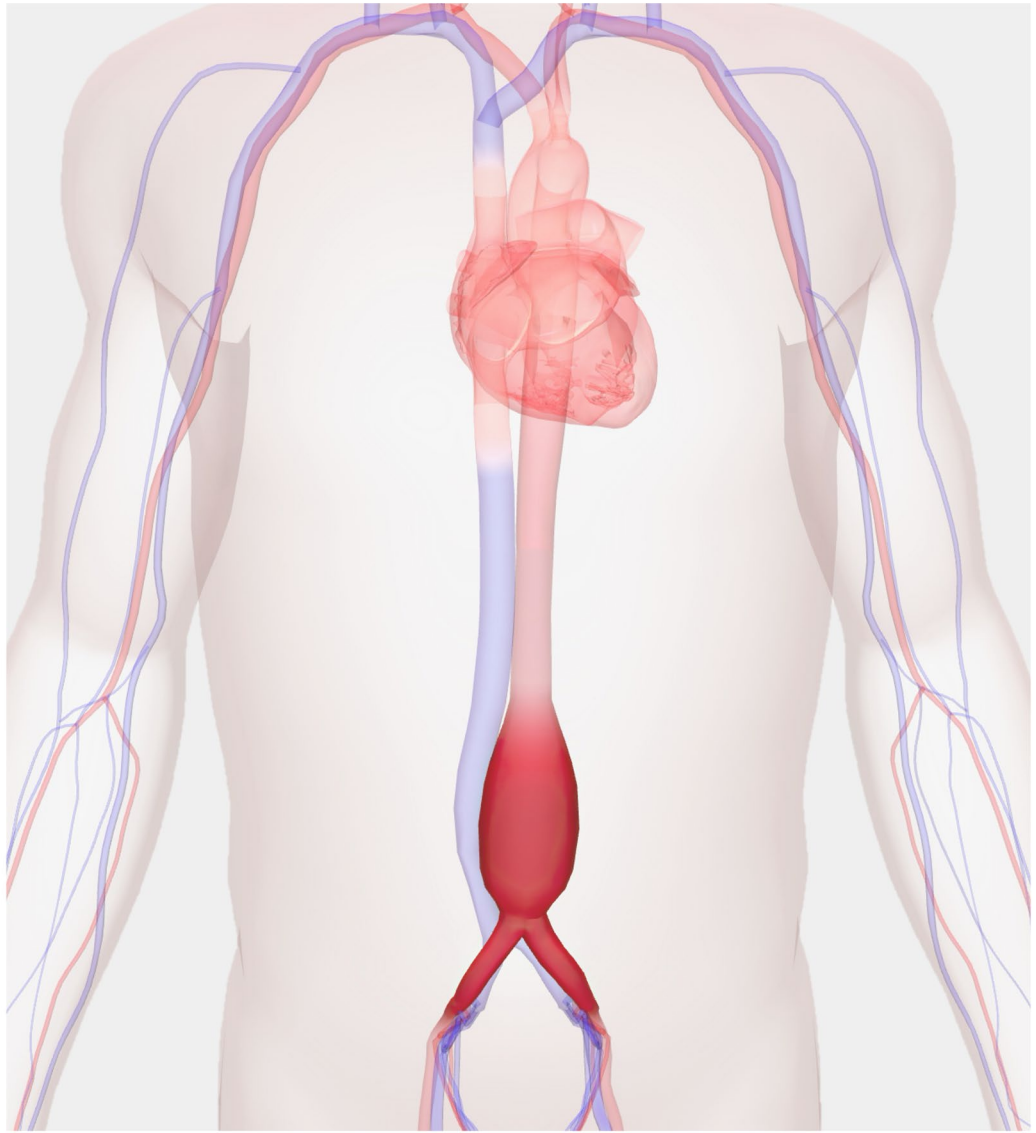
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Context & Background:

- Inflammatory changes stemming from prior open ileo-femoral procedures present a significant challenge for future endovascular access.
- We present a case of a VBX stent graft slippage to show the added nuances of this challenge in terms of access and repair options in a high-risk surgical candidate

- **Snapshot:** Hybrid open–endovascular management of aorto-ileo-bifemoral vascular disease encompassing redo right ileo-femoral reconstruction, endovascular infrarenal pseudoaneurysm repair, and a R-to-L femoral–femoral bypass; later complicated by slippage of overlapping VBX stent grafts at the infrarenal pseudoaneurysm site at 3-month follow-up.
- **Objective:** To present this rare occurrence and highlight potential endovascular management strategies in patients who cannot tolerate open surgical repair.



Case Presentation:

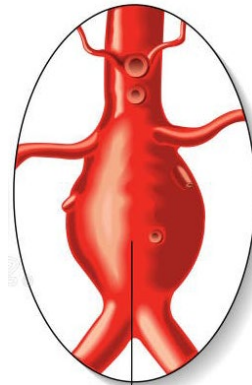
Patient is a 58-year-old female:

PMH:

- Aorto-iliac occlusive disease, s/p aorto-bifemoral bypass, 2011
- CAD s/p PCI with cardiac stents
- CHF
- Stage 3 COPD on home O₂, current active smoker
- SCC of lung s/p radiation therapy, 2023

Presenting Findings:

- 6.5 x 3.5 cm proximal aortic pseudoaneurysm
- 2.3 x 3.0 cm right femoral pseudoaneurysm
- Occlusion of the left limb of prior aorto-bifemoral graft
- Dense scar and inflammatory tissue encountered intraoperatively



Results: Preoperative CT Imaging (Dec 31, 2024)

Figure 1A



Figure 1B



- **Figures 1A & 1B** — Contrast-enhanced CT imaging on December 31, 2024 demonstrating 6.5 x 3.5 cm aortic pseudoaneurysm and a 2.3 x 3.0 cm right femoral pseudoaneurysm in the setting of prior aortobifemoral bypass graft and now also showing occlusion of the left graft limb.

Results: Operative Intervention — February 3, 2025

1

Right Iliofemoral Reconstruction

Redo reconstruction using a **rifampin-soaked 12×6 mm bifurcated Dacron graft** to the profunda and superficial femoral arteries.

3

Femoral-Femoral Bypass

Right-to-left femoral-femoral bypass with an **8 mm ringed Propaten graft**, tunneled suprapubically to restore left-sided perfusion.

2

Infrarenal Pseudoaneurysm Repair

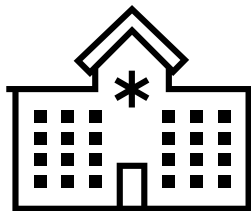
Native aortic lumen, excluding pseudoaneurysm defect, measured at 10 mm

Two appropriately sized **VBX stent grafts (11 × 59 mm and 11 × 79 mm)** were used for endovascular exclusion of the infrarenal pseudoaneurysm, with a 3 cm overlap between the grafts.

4

Bilateral Sartorius Muscle Flaps

Bilateral sartorius muscle flaps: Provide vascularized graft coverage. Palpable distal pulses confirmed bilaterally at procedure end.



Intraoperative Images (Feb 3, 2025)

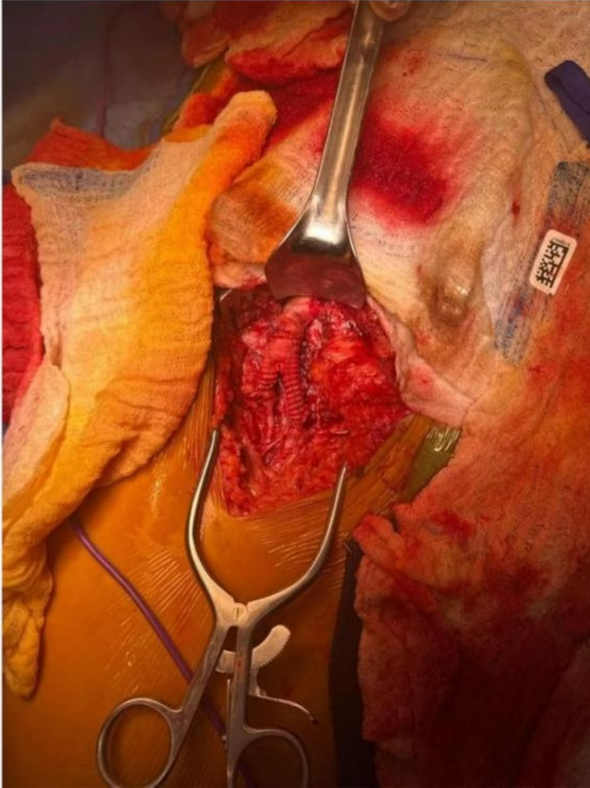


Figure 1C - Intraoperative image showing right iliofemoral reconstruction with a rifampin-soaked bifurcated Dacron graft.

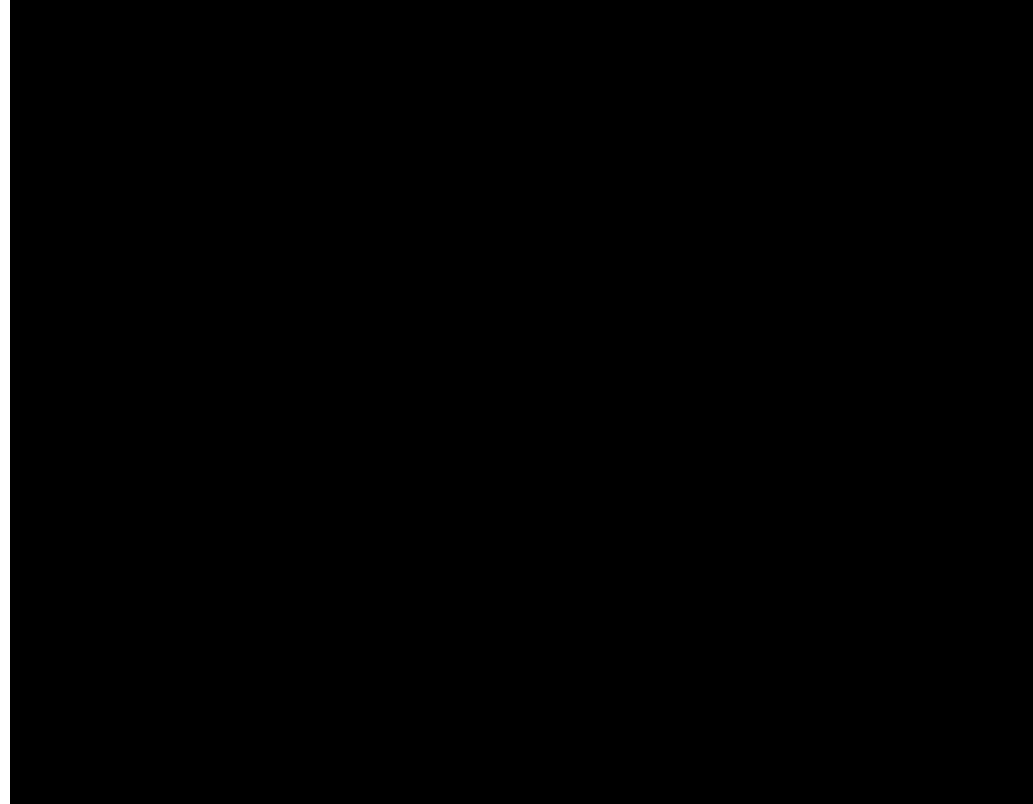
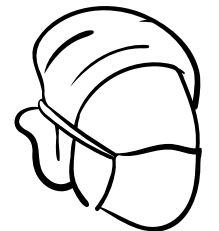


Figure 1D - Intraoperative fluoroscopy immediately following VBX stent grafts placement for endovascular exclusion of infrarenal pseudoaneurysm





Imaging Demonstrating VBX Stent Graft Slippage at 3-mo Post-Op



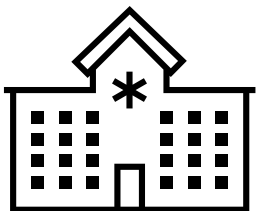
Operative Intervention - June 2, 2025

5

Trans-axillary Redo Infrarenal Pseudoaneurysm Repair

Trans-axillary repair was performed using a **13 mm×10 mm VIABAHN stent graft**

Figure 1E - Postoperative contrast-enhanced CT imaging from May 16, 2025 demonstrating separation of the infrarenal aortic stents, with contrast extravasation into the aneurysm sac at the site of discontinuity between the superior and inferior stents.



Intraoperative Image (Jun 2, 2025)

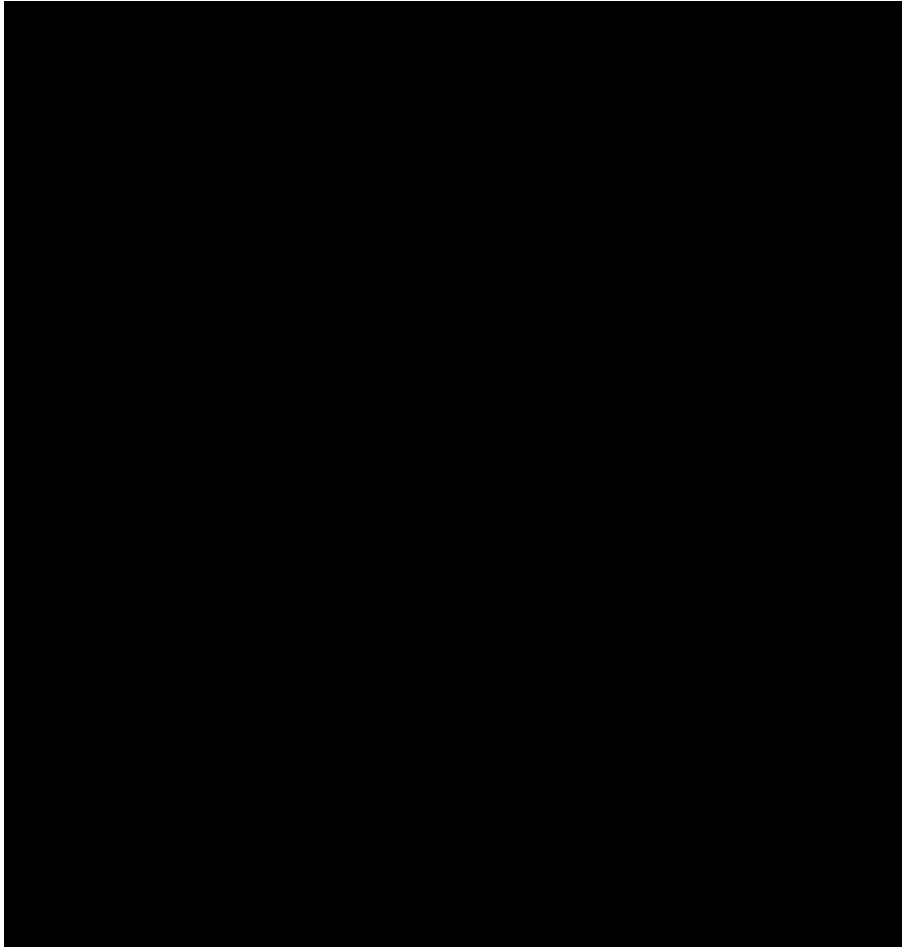


Figure 1F - Intraoperative fluoroscopy immediately following redo trans-axillary VIABAHN stent graft placement for vascular exclusion of infrarenal pseudoaneurysms.



9-Mo Post-Trans-axillary Endovascular Relining Imaging



Figure 1G - Contrast-enhanced CT imaging demonstrating patent initial VBX stent grafts and a subsequently placed self-expanding VIABAHN stent graft for relining, with successful stenting of the infrarenal aorta and no residual aneurysm sac filling at 9-month follow-up.



Discussion & Summary:

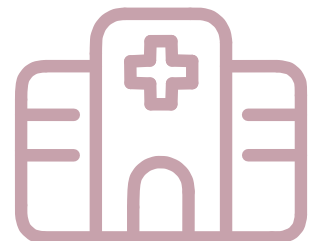
Endovascular Salvage is Feasible

- Type III endoleak in AAA following initial stent-graft repair was successfully managed with endovascular relining via trans-axillary access.

Durable Aneurysm Exclusion Achieved

- Poor surgical candidate for open repair s/p endoleak and hostile groin
- Successful AAA and ileo-femoral disease management with imaging showing patent graft stents at 9mo f/u

- ❑ **Direct Answer to Objective:** In the setting of a hostile groin, endovascular salvage remains a viable and effective strategy for managing AAAs in complex vascular patients who cannot tolerate open surgical repair. However, therapeutic avenues are extremely limited, as seen in this case.



Thank you!

Questions and discussion welcome.

