



Pioneering TASC D Lesions

Justin Robbins, MD; Shabnam Parsa, MD, MA; Morgan Curtis, BS; Saurabh Gupta, MD
Division of Vascular Surgery, Department of Surgery, University of Maryland, Baltimore, MD

Background

- 78-year-old male with a history of hypertension, exploratory laparoscopy after iatrogenic injury following colonoscopy with primary repair of colon, prior smoker.
- Presented from PCP with bilateral lower extremity pain, rest pain in right leg, inability to complete activities of daily living.
- CTA obtained showed focal occlusion at the level of the aortoiliac bifurcation

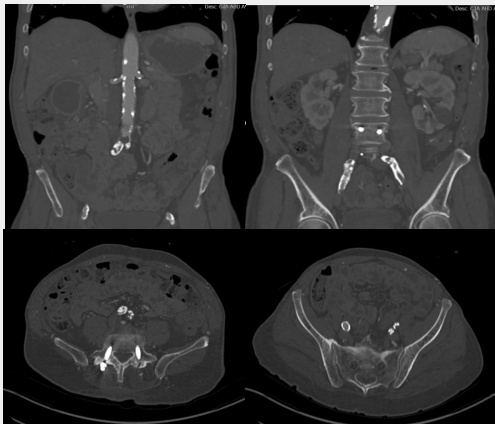


Figure 1. Pre-operative CT imaging

Operative Course

- Endovascular access via bilateral femoral arteries
- Retrograde wire passed in subintimal plane
- 014 wire, IVUS catheter, and Pioneer re-entry device used
- Intra-thoracic placement confirmed via angiography
- Bilateral tracts dilated with 6 mm balloons
- 8 mm VBX stent deployed in infrarenal aorta
- Carried down with 8 mm VBX to L common femoral and R common iliac. 8 mm Viabahn placed in R EIA

Intraoperative Angiography

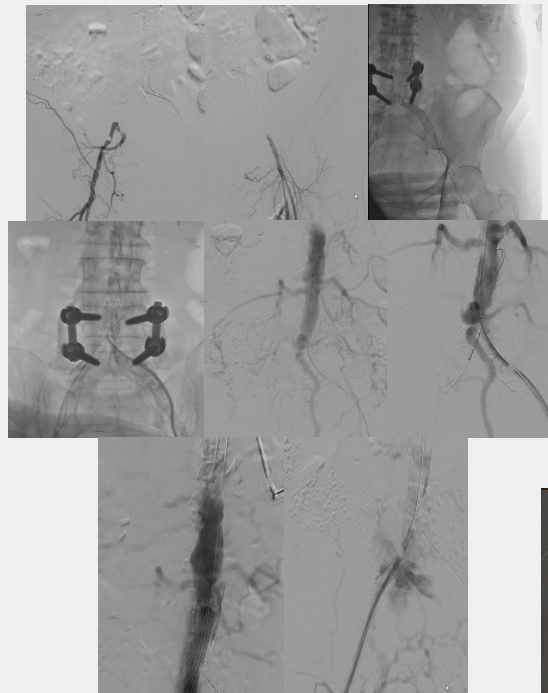
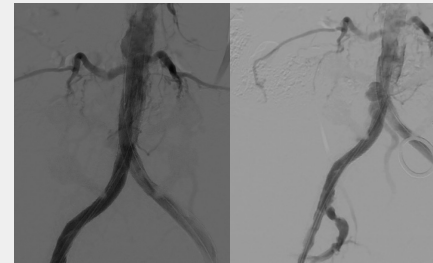
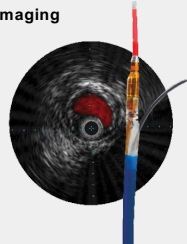


Figure 2. Intra-operative imaging



Postoperative Course

- Postoperative hypotension with CTA demonstrating no active extravasation
- Patient discharged home on postoperative day 6
- Post-operative outpatient follow-up with resolution of pain in extremities, palpable femoral pulses.

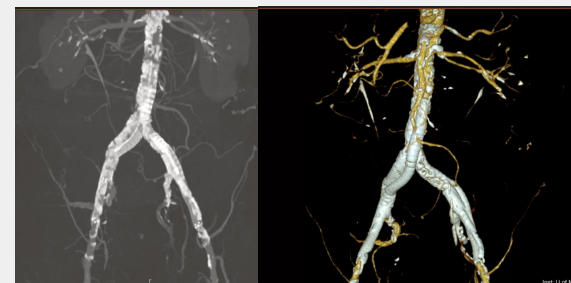
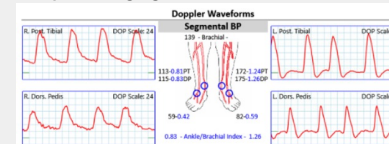


Figure 3. Post-op CT imaging & ABI



Discussion

- Endovascular therapy is the recommended first-line therapy for TASC A and B lesions and increasingly for TASC C lesions as endovascular techniques improve
- Surgery is usually recommended for TASC D lesions, but advanced endovascular approaches are now being applied in these lesions as well, with good results.^{1,2}
- Covered stents with longer patency and better outcomes compared to bare metal for TASC D lesion² and essential in case like this.

TASC Aorto-Iliac

TASC A lesions - Unilateral or bilateral CIA stenosis - Unilateral or bilateral single short (<3 cm) CIA stenosis	
TASC B lesions - Short (<3 cm) stenosis of the infrarenal aorta - Unilateral CIA occlusion - Single or multiple stenosis totaling 3 to 30 cm involving the CIA not extending into the CIA - Unilateral CIA occlusion not involving the origins of the internal iliac or CIA	
TASC C lesions - Bilateral CIA occlusions - Bilateral CIA stenosis 3 to 30 cm long not extending into the CIA - Unilateral CIA occlusion involving the origins of the internal iliac and/or CIA - Heavily calcified unilateral CIA occlusion with or without involvement of the origins of the internal iliac and/or CIA	
TASC D lesions - Infrarenal aortic occlusion - Diffuse disease involving the aorta and both iliac arteries - Diffuse multiple stenosis involving the unilateral CIA, IIA, and CIA - Unilateral occlusion of both CIA and IIA - Bilateral CIA occlusions - Iliac stenosis in patients with AAA not amenable to endograft placement	

Figure 4. Trans-Atlantic Intersociety Classification

References

- Obara, Mariana Kondo, et al. "Endovascular versus Hybrid revascularization in TASC C/D Aortoiliac Occlusive Disease: A Systematic Review and Meta-Analysis." *Annals of Vascular Surgery* (2026).
- Mwipatayi, B. Patrice, et al. "A systematic review of covered balloon-expandable stents for treating aortoiliac occlusive disease." *Journal of Vascular Surgery* 72.4 (2020): 1473-1486.