

Venous Bypass for Treatment of Chronic Venous Stasis Ulcers

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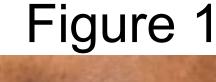
INTRODUCTION

We present a case of a 70-year-old female with chronic, recurrent right lower extremity venous stasis ulcers refractory to non-operative management who underwent right femoral to axillary vein bypass with resultant wound healing.

PATIENT PRESENTATION

- HPI: 70 YO African American female with a recurrent right lower extremity venous stasis ulcer
- PMHx: TIA, PAD, recurrent bilateral lower extremity DVT, PE
- PSHx: IVC filter placement, left posterior tibial artery angioplasty
- Family history: HTN, DM
- Social history: None
- PE: RLE edema and ulceration (Figure 1)
- Imaging and workup
- CTV chronically occluded infrarenal IVC, diminutive iliac veins, collateral circulation in retroperitoneum, pelvis, body wall.
- BLE venous duplex chronic DVTs in the right common femoral and popliteal veins along with the left superficial femoral vein. Reflux seen in the deep veins bilaterally.
- ABIs R 1.04, L 1.01
- Debridement of recurrent RLE wound in March 2023 (Figure 2)

RESULTS









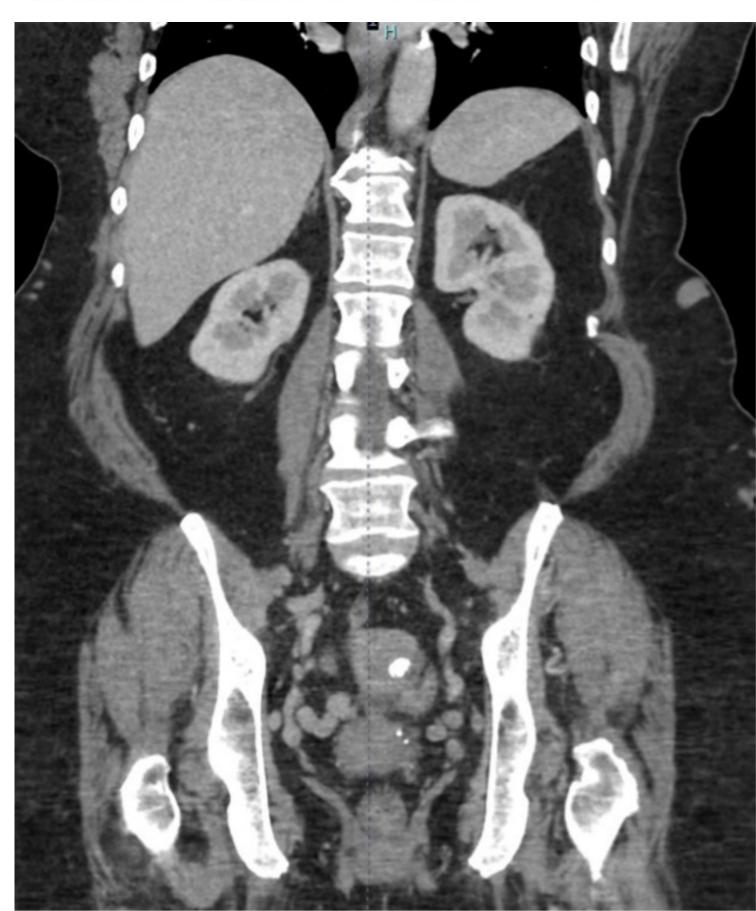


Figure 3



REFERENCES

- . Kahn, SR, Comerota, A. J., Cushman, M., Evans, N. S., Ginsberg, J. S., Goldenberg, N. A., et al (2014). The postthrombotic syndrome: evidence-based prevention, diagnosis, and treatment strategies: a scientific statement from the American Heart Association. Circulation, 130(18), 1636-1661.
- 2. Schulman S, Lindmarker, P., Holmström, M., Lärfars, G., Carlsson, A., Nicol, P., et al. (2006). Post-thrombotic syndrome, recurrence, and death 10 years after the first episode of venous thromboembolism treated with warfarin for 6 weeks or 6 months. Journal of Thrombosis and Haemostasis, 4(4), 734-742.
- . Kahn, S. R., Shrier, I., Julian, J. A., Ducruet, T., Arsenault, L., Miron, M. J., et al. (2008). Determinants and time course of the postthrombotic syndrome after acute deep venous thrombosis. Annals of internal medicine, 149(10), 698-707.

CLINICAL COURSE

- Patient underwent right common femoral to axillary vein bypass on 9/18/2023.
- A 10 mm ringed PTFE graft was tunneled medial to the anterior superior iliac spine.
- Distal anastomosis was performed on the axillary vein with use of a gentle C-loop to ensure it would not kink with movement of the right upper extremity.
- Intra-operative inspection revealed robust flow through the graft
- Seen by PT/OT on POD 1 and discharged home in good condition on POD 2.
- At one-month follow-up, the patient had recovered well with significant improvement of her right lower extremity edema and resultant wound healing (Figure 3).

DISCUSSION

- Post-thrombotic syndrome (PTS) is a prevalent longterm sequela of DVT affecting 20-40% of patients within the first two years after DVT.¹
- Symptoms include lower extremity edema, pain, and ulcer formation.²
- Delayed ulcer healing, frequent recurrence, associated pain, and complications of these ulcers lead to substantial disability with an estimated loss of two million workdays per year and early retirement.³
- Non-operative, endovascular, open surgical, and hybrid management techniques for treatment of PTS have been described, but none have been identified as the optimal choice.
- Surgical risk, clinical severity of PTS, specific venous anatomy, and expected lifespan should be taken into consideration prior to selecting patients for these procedures.

CONCLUSION

Although strategies for non-operative management of venous stasis ulcerations remain paramount, surgical alternatives such as bypass should be discussed in the appropriate setting in order to reduce venous hypertension and allow for optimal wound healing and a better quality of life.