



Extrinsic vascular compression and DVT: A novel approach with the Bashir Endovascular Catheter

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BACKGROUND

- Large uterine leiomyomas have been shown to induce VTE through compression of the iliac veins or inferior vena cava
- The Bashir endovascular catheter (BEC) contains an expanding basket that administers thrombolytics through a greater surface area and demonstrates extrinsic vascular compression

CASE SUMMARY

- 73-year-old female with PMH of T2DM, HTN, HLD, smoking and uterine myomectomy who presented with one week of LLE edema, erythema, and pain
- No recent surgeries or immobility; no history of bleeding or clotting disorders
- Lower extremity doppler US revealed a large DVT extending from her posterior tibial and peroneal veins to her common iliac vein

INTERVENTION

- Patient underwent catheter-directed thrombolysis with a BEC
- Mid-procedure, large, calcified uterine leiomyomas were noted near the left external iliac vein, adjacent to the proximal clot burden. Incomplete basket opening was noted in this region
- TPA was infused through the BEC basket for one day with successful BEC removal and subsequent stent placement
- Patient noticed a reduction in pain, edema and erythema within 24 hours

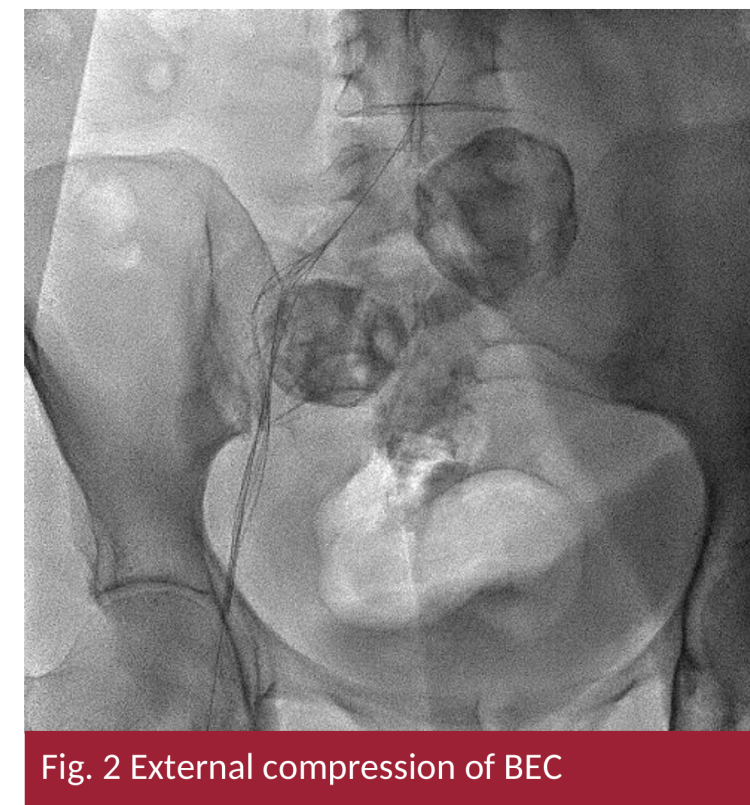


Fig. 2 External compression of BEC

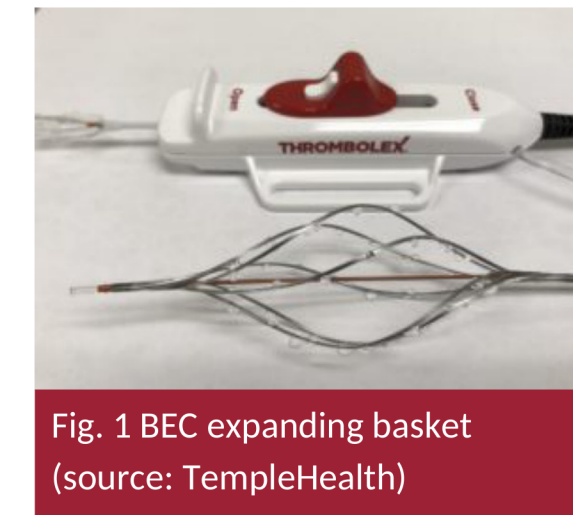


Fig. 1 BEC expanding basket (source: TempleHealth)

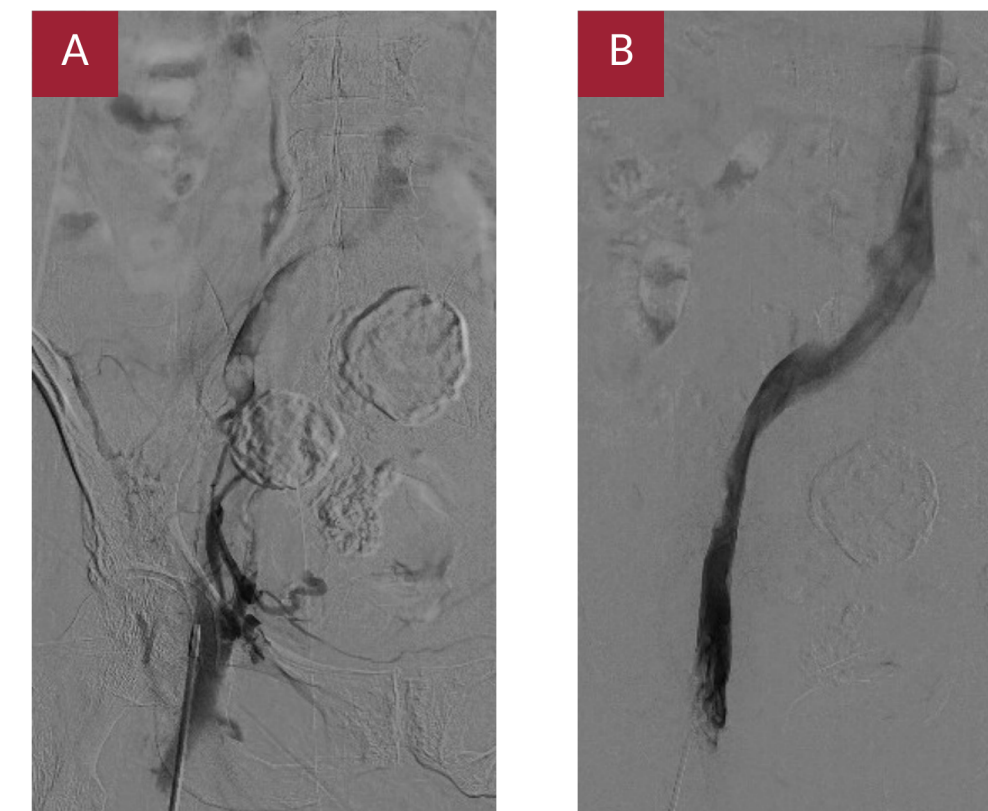


Fig. 3 External iliac vein filling before (A) and after (B) catheter-directed thrombolysis with the BEC

DISCUSSION

- Uterine leiomyomas have been shown to significantly increase the risk of VTE, with larger fibroids correlated with greater risk
- We present a novel use of the BEC basket: resistance to expansion can demonstrate external compression of the vessel. This could prove to be a valuable tool in the identification and treatment of VTE secondary to uterine leiomyoma

REFERENCES

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2. Shiota M *et al.* Deep-vein thrombosis is associated with large uterine fibroids. *Tohoku J Exp Med.* 2011 Jun;224(2):87-9.