

IMAGES IN INTERVENTION

The 0.035-Inch Wire Externalization Technique for Overcoming a Severely Angled and Calcified Aortic Bifurcation



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A 61-year-old man with end-stage renal disease presented to receive endovascular therapy for bilateral intermittent claudication. The target lesion was located in the right common femoral artery and superficial femoral artery. We inserted a 6-F guiding sheath from the left common femoral artery. However, we could not cross over the aortic bifurcation with the balloon anchoring technique because of a severely angled and calcified aortoiliac lesion. Therefore, we progressed the snare catheter (EN Snare, Merit Medical Systems, South Jordan, Utah) through the guiding catheter and punctured the proximal right common artery to insert the 0.035-inch stiff wire (Radifocus Stiff, Terumo, Tokyo, Japan) (Figure 1A). The

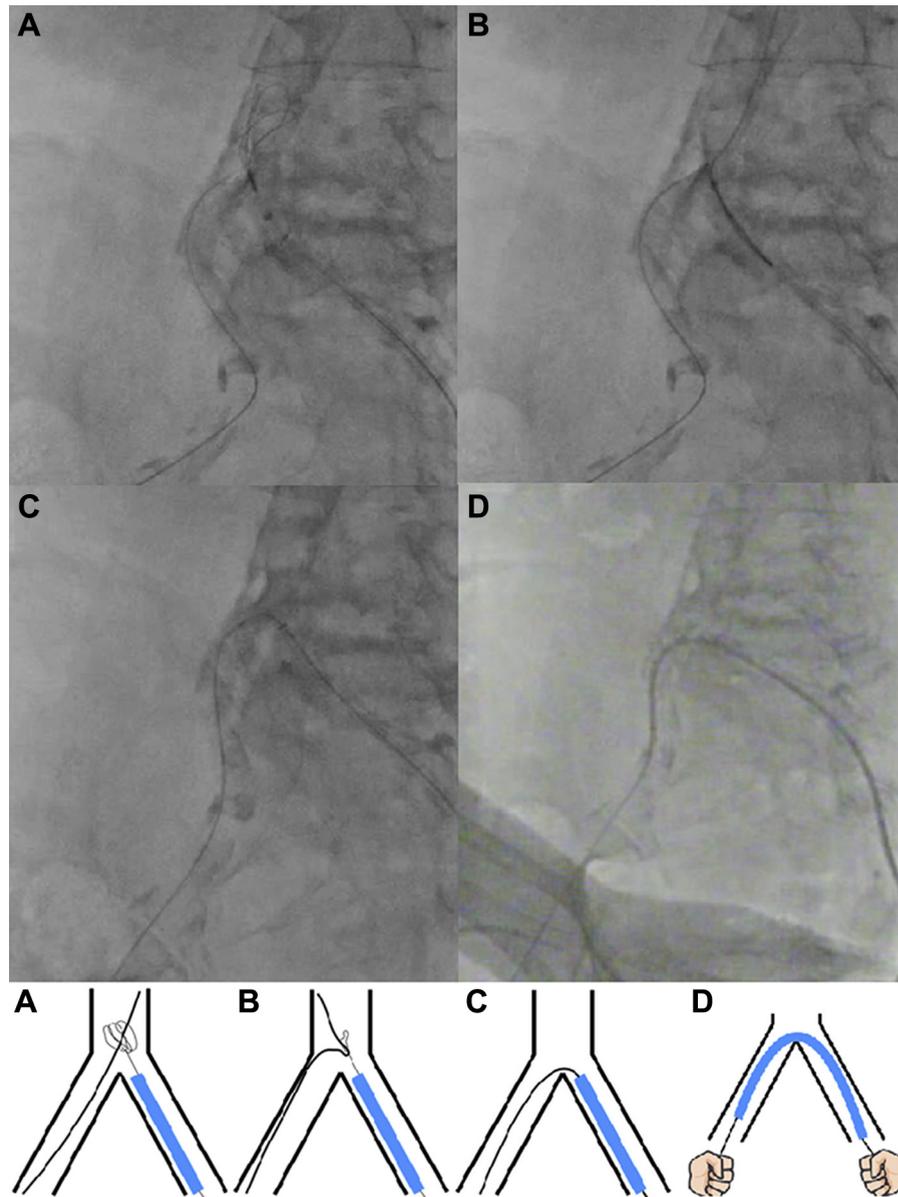
snare catheter caught the 0.035-inch stiff wire (Figure 1B, Online Video 1) and established wire externalization (Figure 1C). The crossover was completed with high back-up force (Figure 1D, Online Video 2).

A severely angled and calcified aortic bifurcation can complicate the strategy for endovascular therapy (1). The 0.035-inch wire externalization technique described herein might be a last resort to overcome such a complication.

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FIGURE 1 The Procedure

(A) A 0.035-inch stiff wire from the right common femoral artery and a snare catheter through the guiding catheter from the left common femoral artery are inserted. (B) A snare catheter catches the 0.035-inch stiff wire ([Online Video 1](#)). (C) The 0.035-inch wire externalization is established. (D) A guiding catheter on an externalized wire crosses over the severely angled and calcified aortic bifurcation, and an assistant holds both edges of the wire to increase the back-up force ([Online Video 2](#)). **Lower panels** are each schemas of the respective **upper panels**.

REFERENCE

1. Raskin D, Khaitovich B, Balan S, Silverberg D, Halak M, Rimon U. The aortic bifurcation angle as a factor in application of the outback for femoropopliteal lesions in ipsilateral versus contralateral approaches. *Cardiovasc Intervent Radiol* 2018; 41:37-42.

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APPENDIX For supplemental videos, please see the online version of this paper.