



## Trapping the Trapped Snare: Dealing with an Unexpected Complication

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### INTRODUCTION

Endovascular snares may themselves become trapped intravascular foreign bodies. The authors describe a technique to salvage such a situation.

### SURGICAL TECHNIQUE

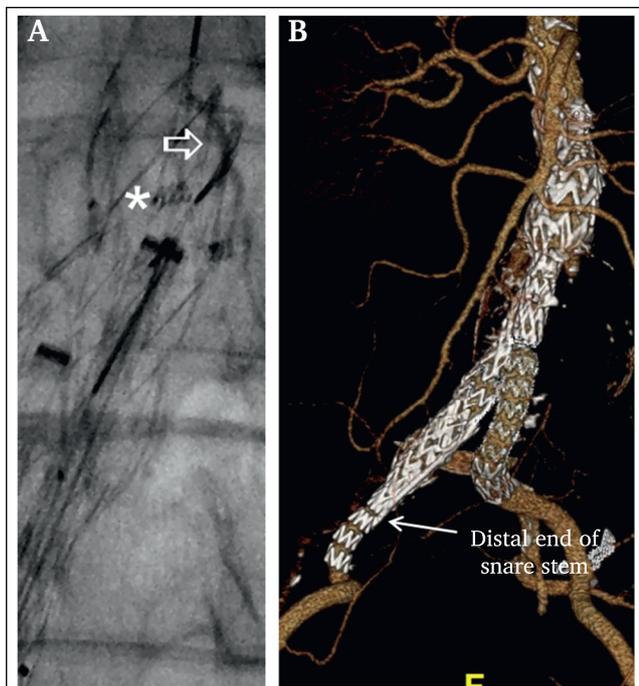
An 87 year old male underwent endovascular aneurysm repair (EVAR) for a 70 mm abdominal aortic aneurysm (AAA) using an Incraft AAA Stent Graft System (Cordis, Baar, Switzerland). During primary endostapling to maximise the seal and fixation for a short neck using the Heli-FX EndoAnchor system (Medtronic, Santa Rosa, CA, USA), one EndoAnchor floated free in the abdominal aorta.

Attempts to retrieve this using a snare (3-loop EN Snare Endovascular Snare System, Merit, South Jordan, UT, USA) resulted in one of the (Nitinol) loops snagging on the suprarenal stent and then hooking underneath an anchoring barb (downward facing). The snare was therefore trapped, and any further attempts to release it resulted in clear deformation of the suprarenal portion (Fig. 1A); therefore, this was abandoned.

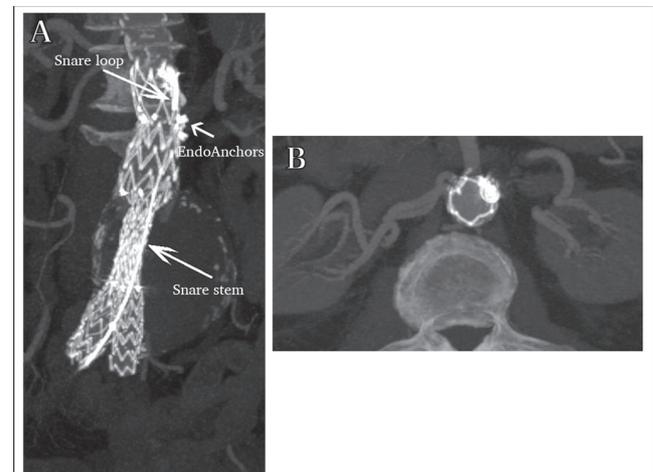
The free floating EndoAnchor was successfully retrieved using a second EN Snare supported by a 9 mm steerable sheath (Tour-Guide, Medtronic). A total of five EndoAnchors were safely deployed to augment fixation and seal as per the original plan. With caudad traction on the snare, an aortic cuff was deployed to cage the proximal portion of the snare, accepting the trapped suprarenal remnant. Following extraperitoneal exposure of the right external iliac artery, the snare system was divided with wire cutters and the distal portion removed. The ipsilateral limb was relined and extended to sandwich and exclude the snare remnant from the vascular system (Fig. 1B). The patient was commenced on lifelong dual antiplatelet therapy and direct oral anticoagulants to minimise the risk of the remnant of exposed snare acting as a thrombogenic focus. Computed tomography angiography showed both snare and AAA to be well excluded (Fig. 2A and B).

### DISCUSSION

Operators should be wary of snare loops drifting above the suprarenal fixation component at EVAR. When intra-aortic foreign bodies cannot be retrieved, caging them allows exclusion from the vascular system.



**Figure 1.** (A) Loose EndoAnchor (\*) and trapped snare loop (hollow arrow). (B) Volume rendered computed tomography reconstruction emphasising right external iliac extension and exclusion of the distal wire-catheter snare stem after division.



**Figure 2.** Computed tomography angiography maximum intensity projection (MIP) reconstruction showing (A) the overall remnant snare in its excluded position, and (B) axial view showing the trapped snare loops.

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