

# Endovascular Salvage of EVAR after Iliac Limb Maldeployment into Aneurysm Sac

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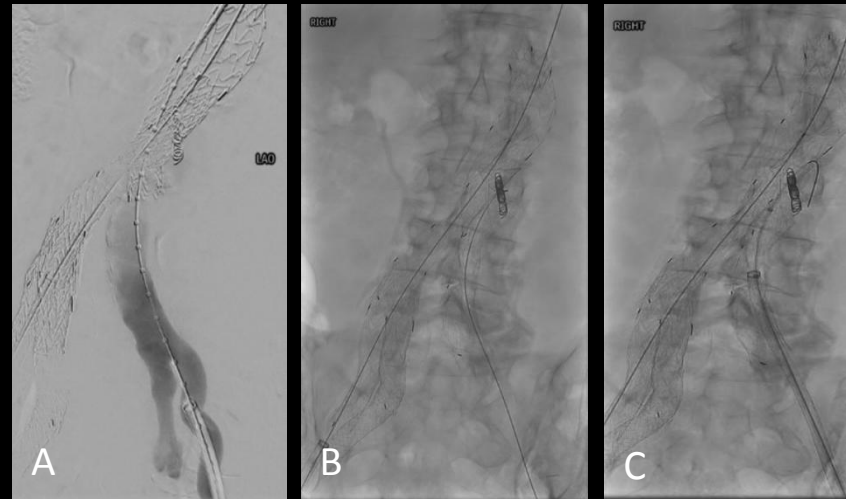
## Introduction

- Maldeployed limb without overlap with the main body piece during endovascular aortic aneurysm repair (EVAR) is challenging to salvage
- Complicating factors include
  - Misalignment of components
  - Orientation of floating limb towards aneurysm wall
  - Limited options to rescue endovascularly, high risk of needing to endotrash the maldeployed limb
- We describe our approach to endovascular salvage of an EVAR limb extension that maldeployed into the aneurysm sac with no overlap with the main body component

### Case presentation

- Indications for procedure: 4.5 cm right common iliac artery aneurysm, 2.5 cm right internal iliac artery aneurysm, and 4 cm infrarenal abdominal aortic aneurysm
- Operative Plan: IMA coil embolization for 4 mm vessel, right iliac-branched endograft (IBE), then bridge with EVAR
- Intraoperatively: IMA was coiled, IBE placed, and EVAR deployed with bridge piece without incident
- When proceeding with placing the ipsilateral iliac limb, we realized the limb was maldeployed posteriorly without overlap into the main body device due to missed wire pull-back

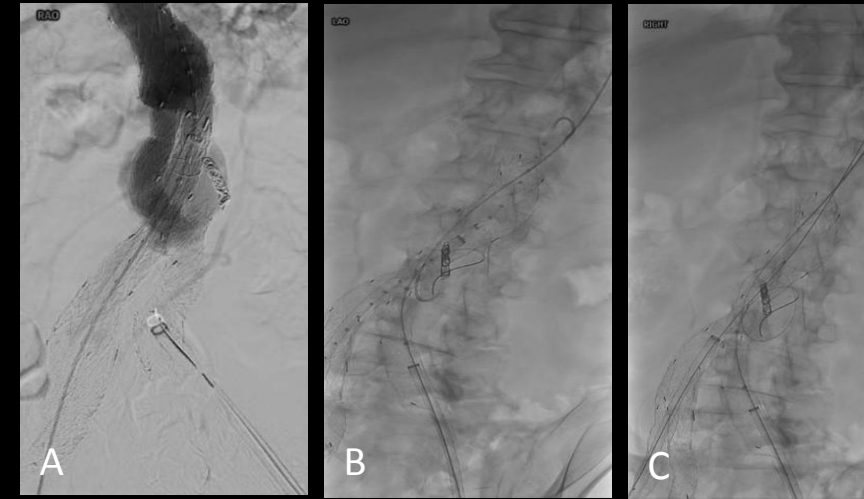
## Methods



**Figure 1:** A) Final angiogram prior to contralateral limb deployment. B) Image of graft limb maldeployment. C) Demonstration of wire out maldeployed limb and coiled in aneurysm sac

### Initial attempts to salvage limb:

- Initially attempted to salvage the limb by using a balloon to pull the proximal limb caudally to minimize the overlap
  - Minimal improvement
- We then used a steerable sheath from the contralateral groin to try to snare out the left groin
  - Unfortunately the wire was unable to navigate from the main body up and into the iliac limb
  - Difficult angle and tendency to coil into aneurysm sac
- Last resort would be endotrash of limb and relining iliac



**Figure 2:** A) Demonstration of non-overlapped components. B) Catheter via radial access wire meeting wire out maldeployed limb. C) Demonstrating radial wire out main body device into aneurysm sac

### Ultimately succeeded with:

- Left radial access with long sheath for support
- Wire through main body of graft and then used catheter to direct wire up towards iliac limb opening
- Able to snare wire from left groin and accordion maldeployed limb to minimize overlap
- Confirmed with balloon pull back that we were truly through both limbs
- Selected and deployed additional limb between components

## Results and Conclusions



**Figure 3:** A) Through and through wire access from radial artery through maldeployed stent. B) Completion angiogram showing successful EVAR

- No endoleak at completion angiogram
- No endoleak and decreased aneurysm sac size on 1-month follow-up imaging
- Ultimately, we were able to successfully use a variety endovascular techniques to salvage a maldeployed EVAR limb despite significant overlap and angulation into the aneurysm sac
- Radial access is a useful adjunct for alternative through and through access if needed