

“The TCAR procedure hinges on arterial access” – Dr. Richard Cambria, MGH

CCA EXPOSURE

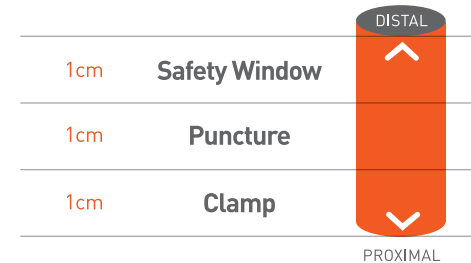
Expose ~3cm of CCA

Distal 1cm - Partially dissect

Mid 1cm - Partially dissect

Proximal 1cm - Fully dissect

- **Key Point: Stabilize CCA for micropuncture access and Arterial Sheath insertion**



PRE-SUTURE ARTERY

Location of Suture

Mid CCA

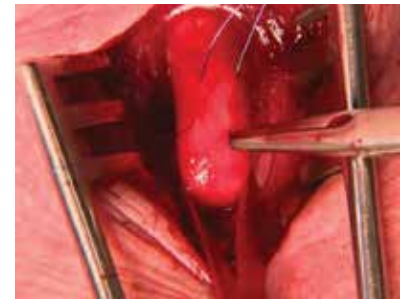
- Place pre-close stitch based on desired needle puncture site

Allow for Safety Window

- Extra distance between pre-closure stitch and distal CCA

- **Key Point: Limit big or deep suture bites to prevent**

- Bunching of artery on Arterial Sheath removal
- Anterior wall hematoma and/or dissection



ARTERIAL TRACTION

- **Key Point: Artery stabilization during micropuncture access is critical.**

Variable methods exist to stabilize the CCA: 1/8" umbilical tape, clamp, fingers, etc.

Note changes in vessel shape (ovalization/flattening)



NEEDLE ACCESS

Micropuncture Needle - Mid 1cm of CCA

- **Key Point: Stick needle slowly and carefully into round (not ovalized) portion of the artery. The CCA can be retracted (or not) to facilitate this step.**

- Use shallow angle to promote atraumatic wire & sheath insertion.
- Puncture in-line and central to arterial lumen



Avoid sticking posterior wall

ADVANCE 0.018 MICROPUNCTURE WIRE

Advance 0.018" wire:

- Use DUS in advance, to measure CCA length and to plan 018 microwire insertion length
- Insert wire (4cm or more if possible).
Be mindful of bifurcation location and disease.
> More wire = more support for microsheath
- Ensure wire tip moves freely in artery on advancement



MICROPUNCTURE SHEATH INSERTION

Remove needle w/out losing wire access

Advance MP sheath proximal to bifurcation

- Measure and have at least 2-3cm inside artery

Appropriate traction is important to ease entry angle

- > **Key Point: Primary and 2nd Operators must properly coordinate traction, sheath insertion, and guidewire stabilization**

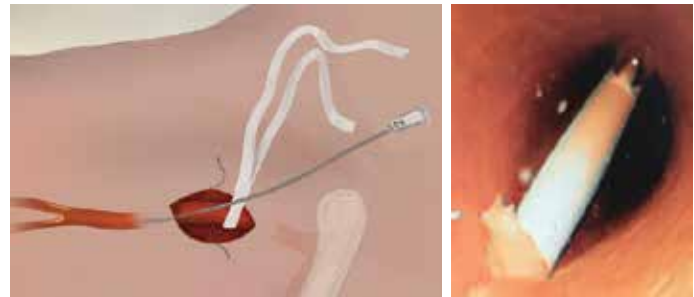


PREP FOR ANGIOGRAM

While stabilizing micropuncture sheath with left hand

- Remove 0.018" wire & dilator
- Attach extension tubing to run angiogram

- > **Key Point: Do not inadvertently advance micropuncture sheath without wire and dilator inserted**



Sheath movement can result in dissection

ENGAGE EC VS. STOP SHORT

Recommend Engage EC

Recommend Stop Short

CCA is 5-7cm & proximal EC <50% stenosis without significant angulation at EC origin



CCA is >7cm



CCA is 5-7cm & proximal EC is >50% stenosis

