TECHNIQUES FOR DEALING WITH CHALLENGING CAROTID LESIONS: HOW DOES TCAR FACILITATE TREATMENT WHEN NOTHING ELSE COULD WORK

TCAR OR NOTHING

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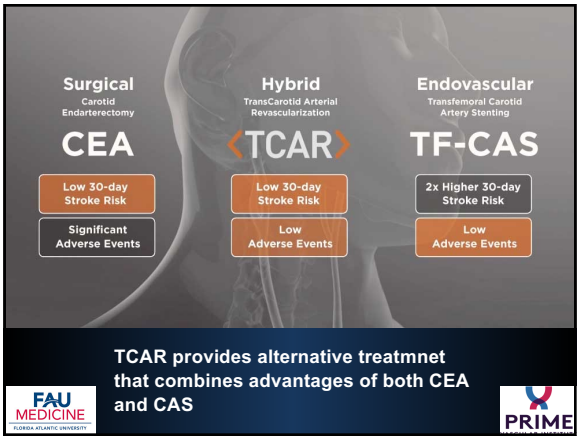
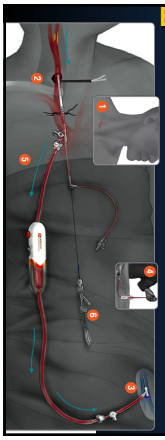
DISCLOSURES

- Nothing to Disclose



TCAR provides alternative treatmnet that combines advantages of both CEA and CAS

BENEFITS OF TCAR

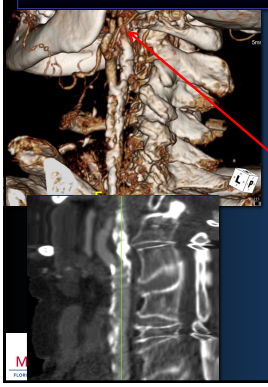


- TCAR allows access to high lesions not easliy reached by CEA
- Avoids potentially tortuous and diseased aortic arch and access vessels which can limit effectiveness of CAS
- Flow reversal allows cerebral protection BEFORE crossing lesion. Reduces microembolization- the main complication of CAS
- Main limitations of TCAR- status and length of CCA “runway”, “hostile neck”, calcification

TCAR OR NOTHING

- ~400 CASES
- Expanding applications of TCAR with proper planning and intraoperative decision making
- TCAR best and ONLY option in some cases

TCAR OR NOTHING – CASE #1



- 85 yo M 99% LICA stenosis. Left TIA
- Home 02
- CABG, Watchman, TAVR, pacemaker
- Heavily calcified, High lesion
- C-spine immobility
- Preocclusive lesion- high risk for embolization from filter advancement through lesion

TCAR OR NOTHING – CASE #1

- Heavily calcified subtotal occlusion prox L ICA
- 8FR sheath, flow reversal
- .014 TCAR wire crossed lesion
- Unable to track balloon
- .014 exhange length Whisper wire for additional support

TCAR OR NOTHING – CASE #1

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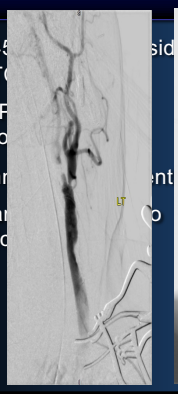
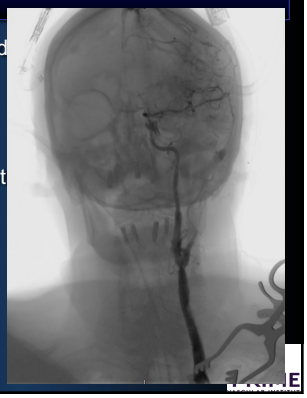
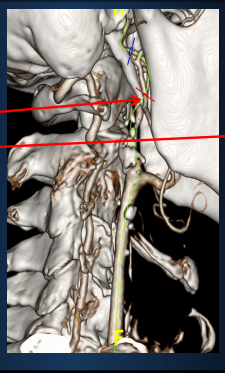
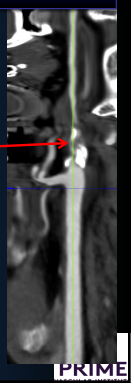




TCAR OR NOTHING-CASE #2

- 80 yo M with R Hemipsheric stroke
- CTA- "99% stenosis vs occlusion R ICA"
- Clamp zone above C-1
- Likely inability to safely pass filter through lesion



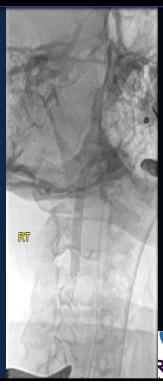


TCAR OR NOTHING-CASE #2

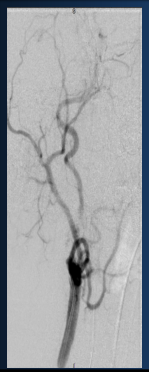
- Under the protection of flow reversal, we were able with some difficulty to advance a wire through the 99.9% stenosis of the right ICA and into the distal ICA.
- This required use of multiple 0.014 wire and 0.014 Quick-Cross catheter and angiography confirmed that we were in the true lumen of the distal ICA

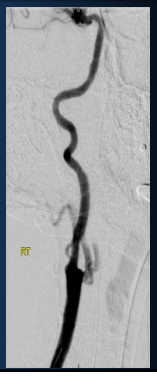
TCAR OR NOTHING-CASE #2

- Balloon angioplasty using **a 6 x 40 mm** balloon, followed by stenting using an **8 x 30 mm** self-expanding Enroute stent from the ICA to just above the carotid bifurcation and then **a 9 x 30 mm** Enroute self-expanding stent extending the repair into the distal common carotid artery



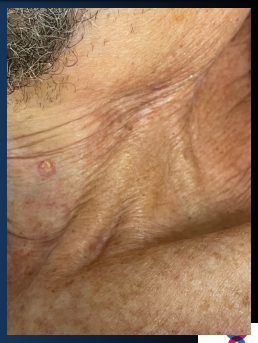
TCAR OR NOTHING-CASE #2



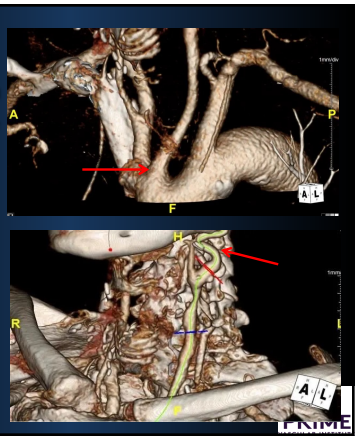


TCAR OR NOTHING-CASE #3

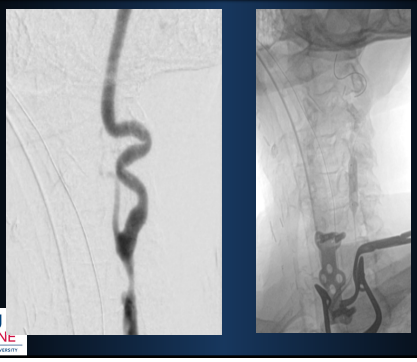
- 74 yo M left hemispheric stroke
- >70% L CCA stenosis. CONTRALATERAL carotid occlusion
- Prior Neck Sx and XRT- "Woody neck"/ "Hostile neck"
- Tracheostomy
- C-Spine Fusion



- Type 3 Bovine Arch
- Severe tortuosity of ICA
- 3.5 cm "runway", hostile neck- poor TCAR candidate
- CAS attempted



SUCCESSFULLY COMPLETED WITH TCAR- Hostile neck, 3.5cm Runway



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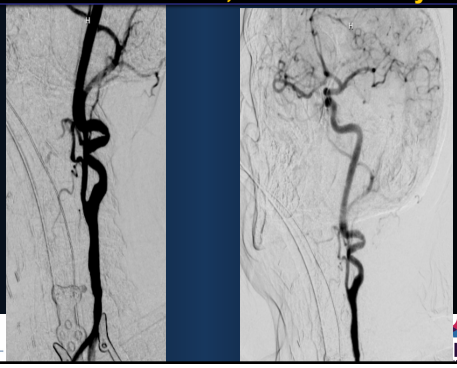
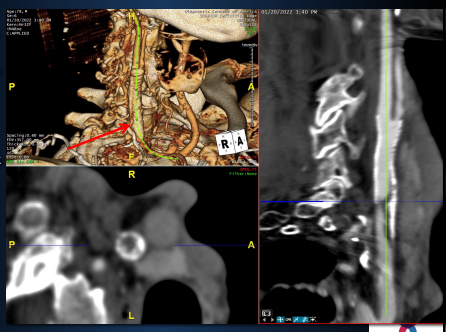


TCAR OR NOTHING CASE #4

- 78 yo M

R Hemishperic TIA

- Prior R CCA stent (OSH) with 99% ISR with soft plaque
- Radical neck surgery for H+N CA/ Hostile neck
- TCAR "runway" 1.1cm
- Risk embolization with filter



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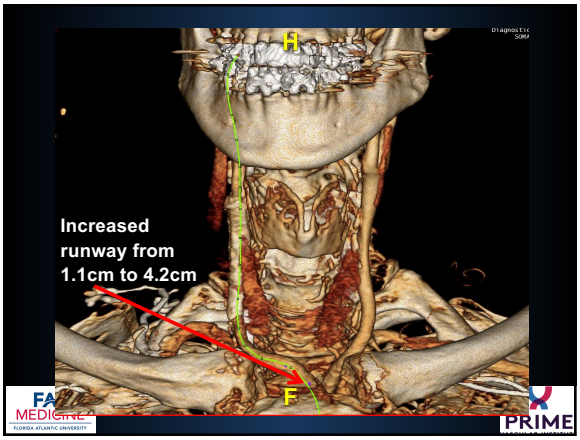

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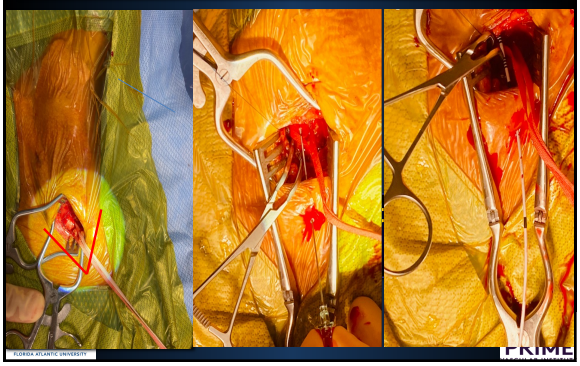
TCAR – Sternal notch approach Hostile neck, Short runway



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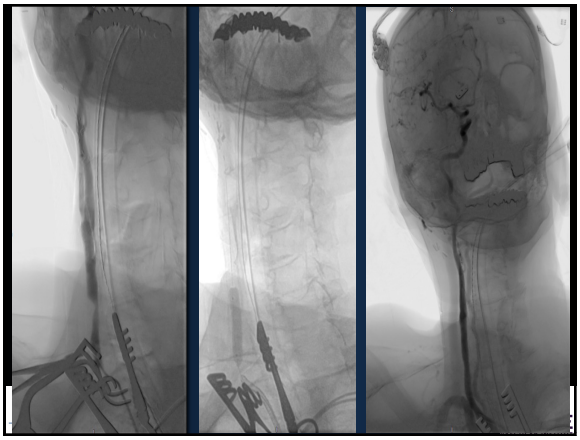

CONCLUSION TCAR OR NOTHING

- In addtion to being an alternative to CEA and CAS, TCAR may in fact be the ONLY option for treatment of some complex lesions
- Hostile neck anatomy and "short runway" should not be considered a contraindication to TCAR
- Careful preoperative planning and intraoperative troubleshooting are keys to its success

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