

CAROTID DUPLEX CASE STUDIES

MGB FIREMAN VASCULAR CENTER

DRENA ROOT, RVT

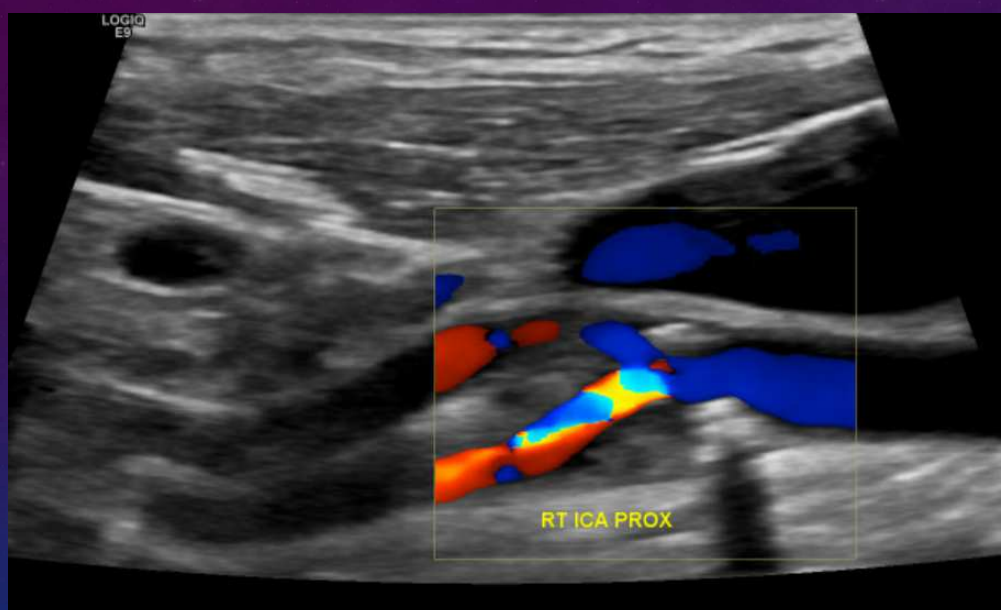
TECHNICAL DIRECTOR

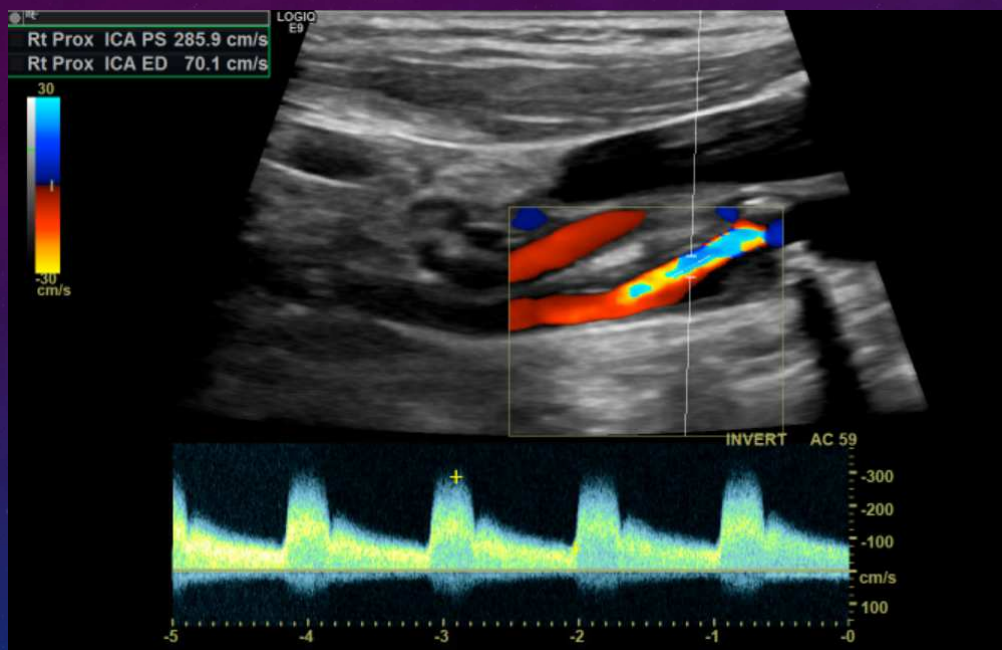
NO DISCLOSURES



>50% STENOSIS CLASSIC
ATHEROSCLEROTIC
PRESENTATION

- 77 Y FEMALE WITH ASX CAROTID
STENOSIS WHO WENT ON TO
HAVE CEA FOLLOWING DUPLEX

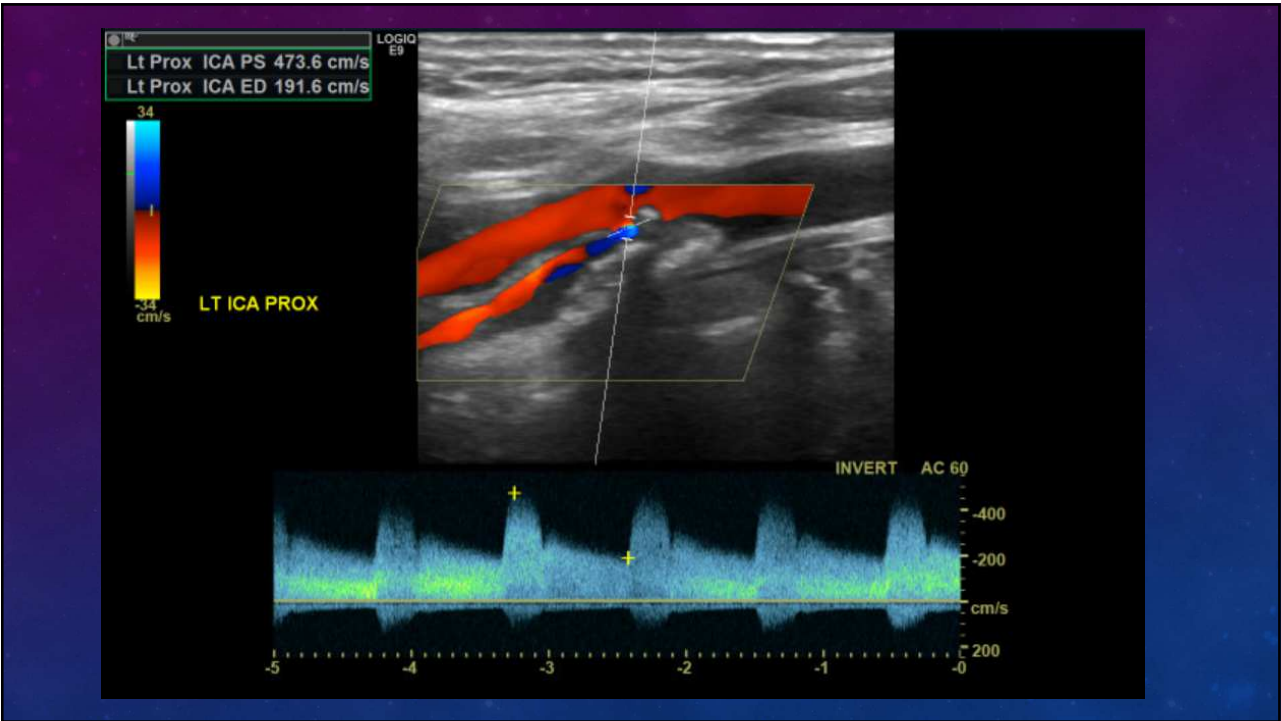
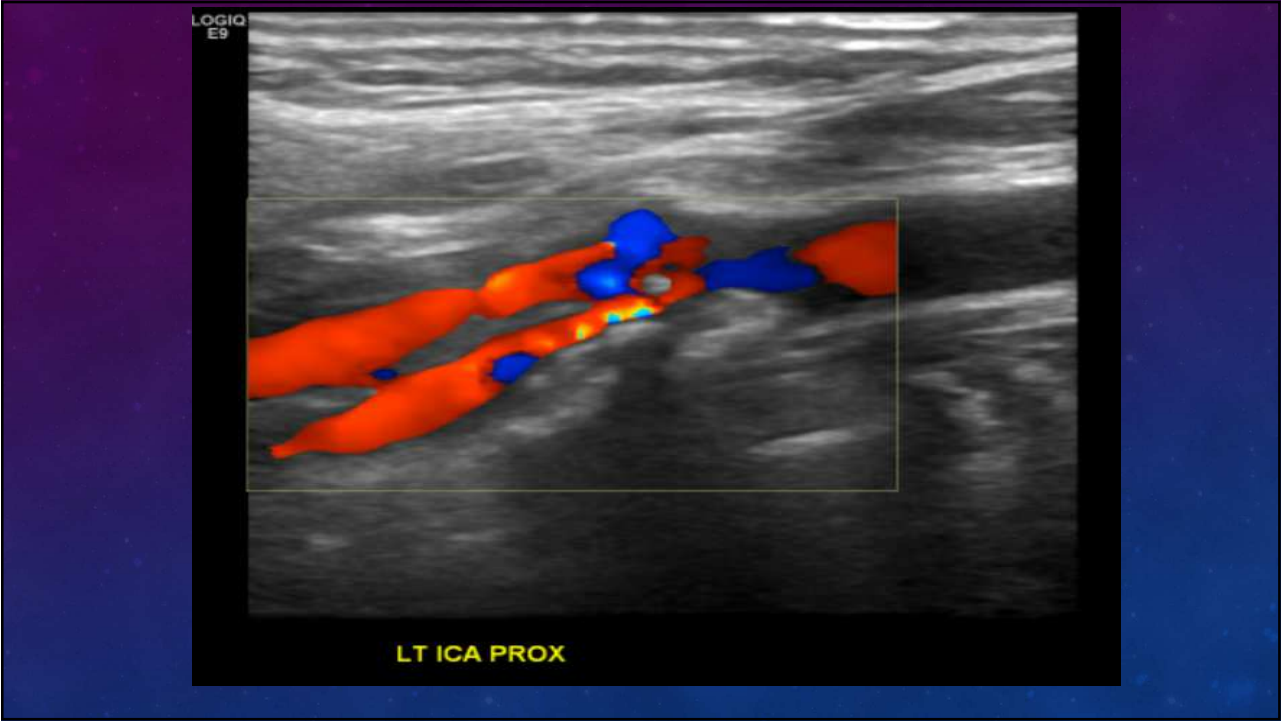




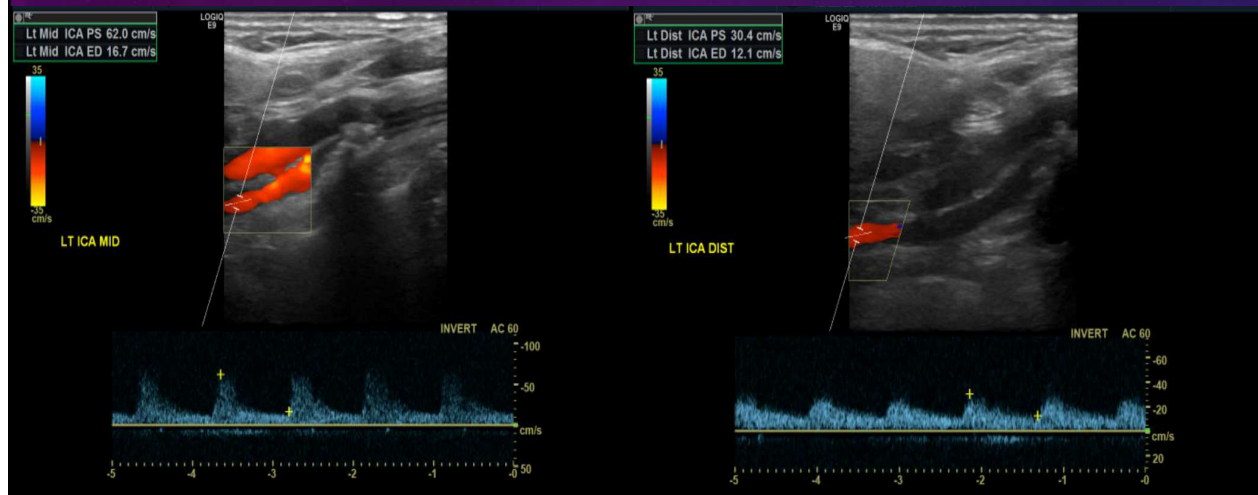
SEVERE CAROTID STENOSIS

82 y.o. male with Left eye blurriness
and episodic left facial numbness.
No prior hx of stroke or TIA





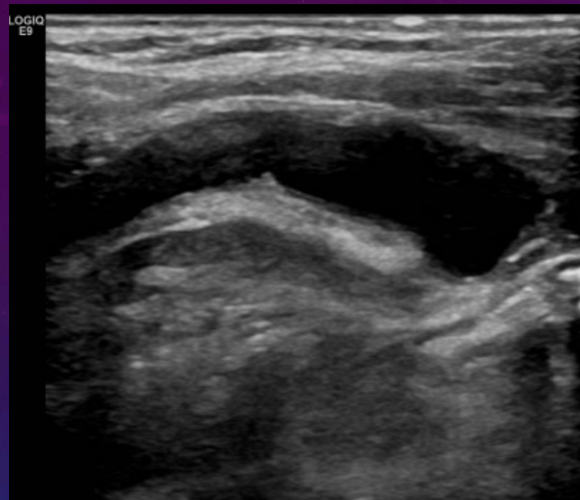
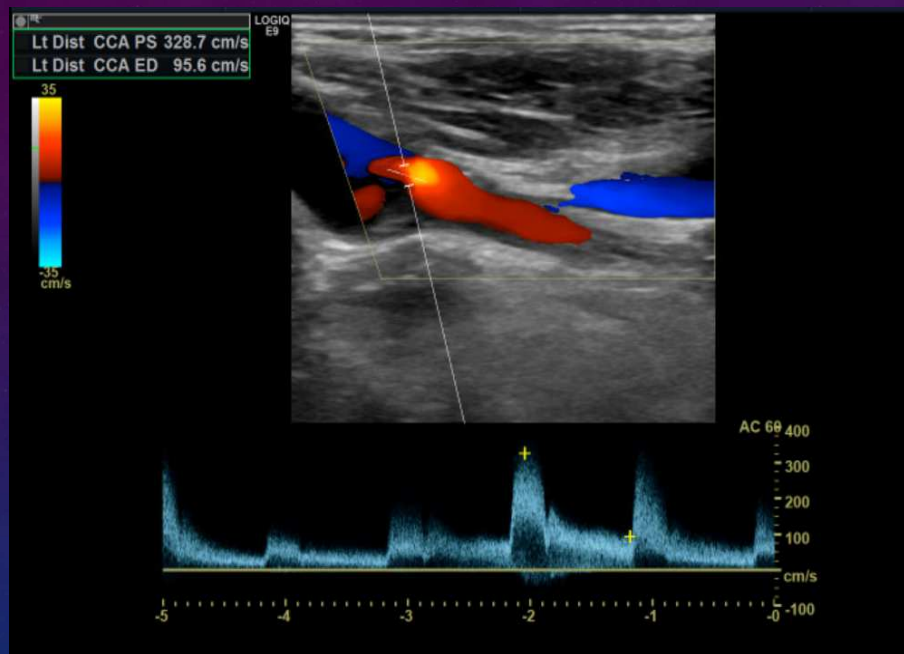
SIGNIFICANT REDUCTION IN PEAK SYSTOLIC VELOCITY DISTAL TO STENOSIS



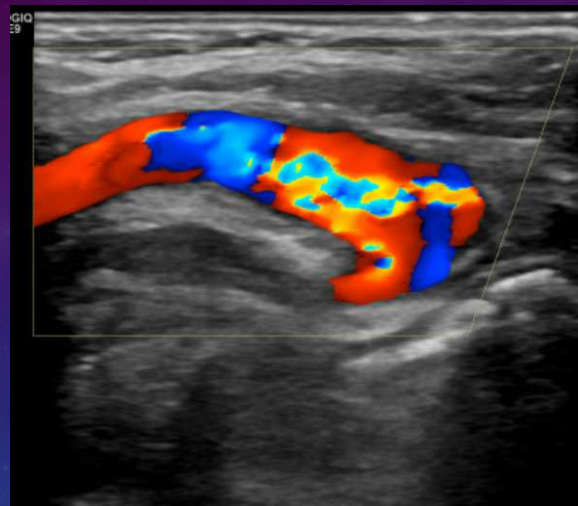
TURBULENCE FROM PROXIMAL STENOSIS

83 y.o. female with Asx carotid stenosis, prior hx left CEA presents for routine follow up care

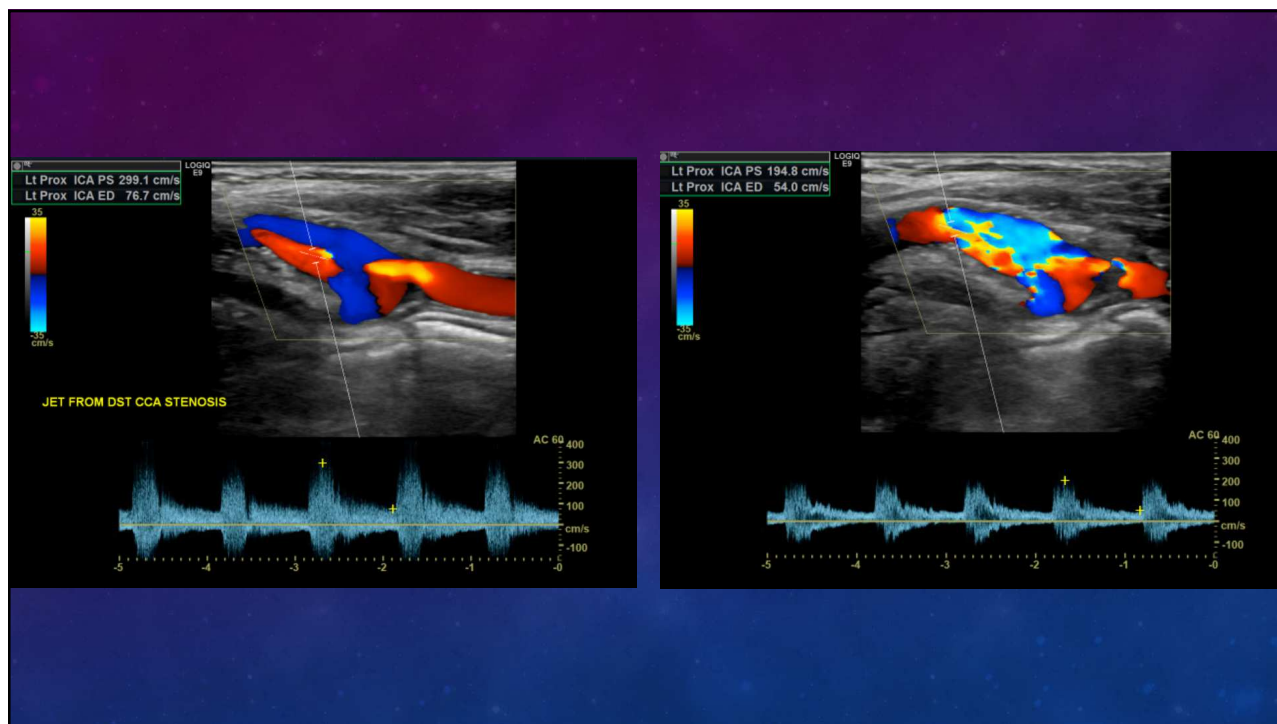




LT ICA PROX

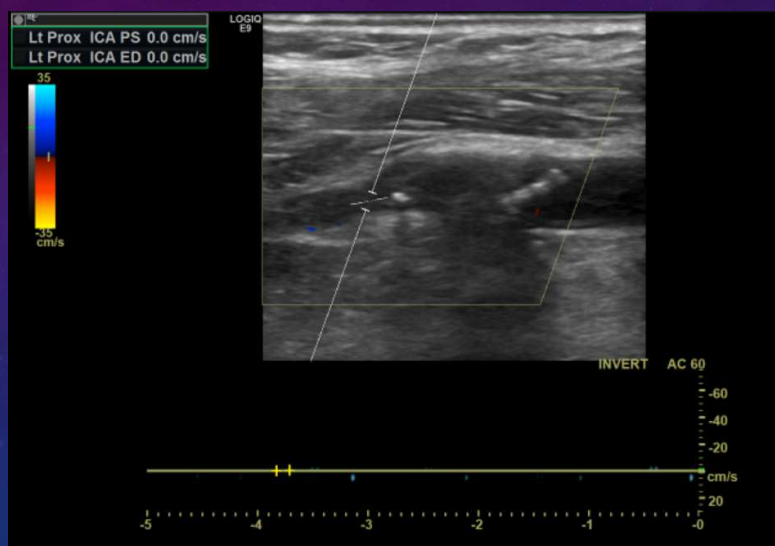


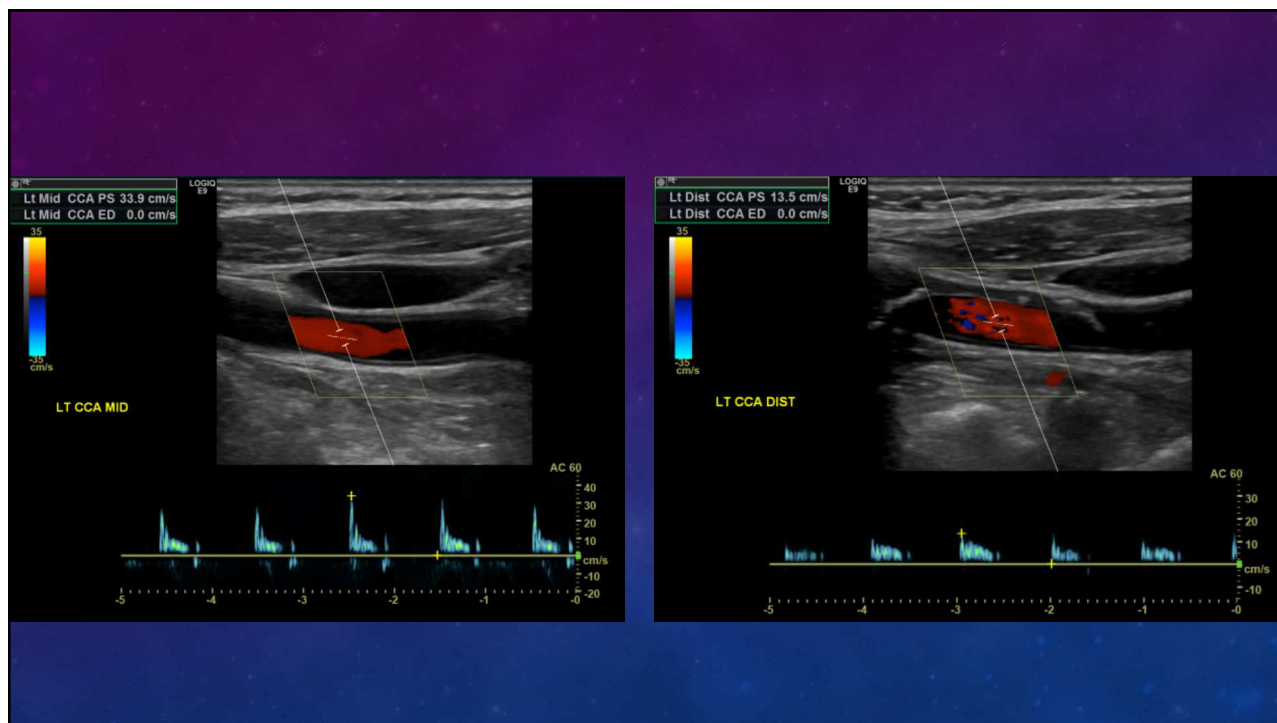
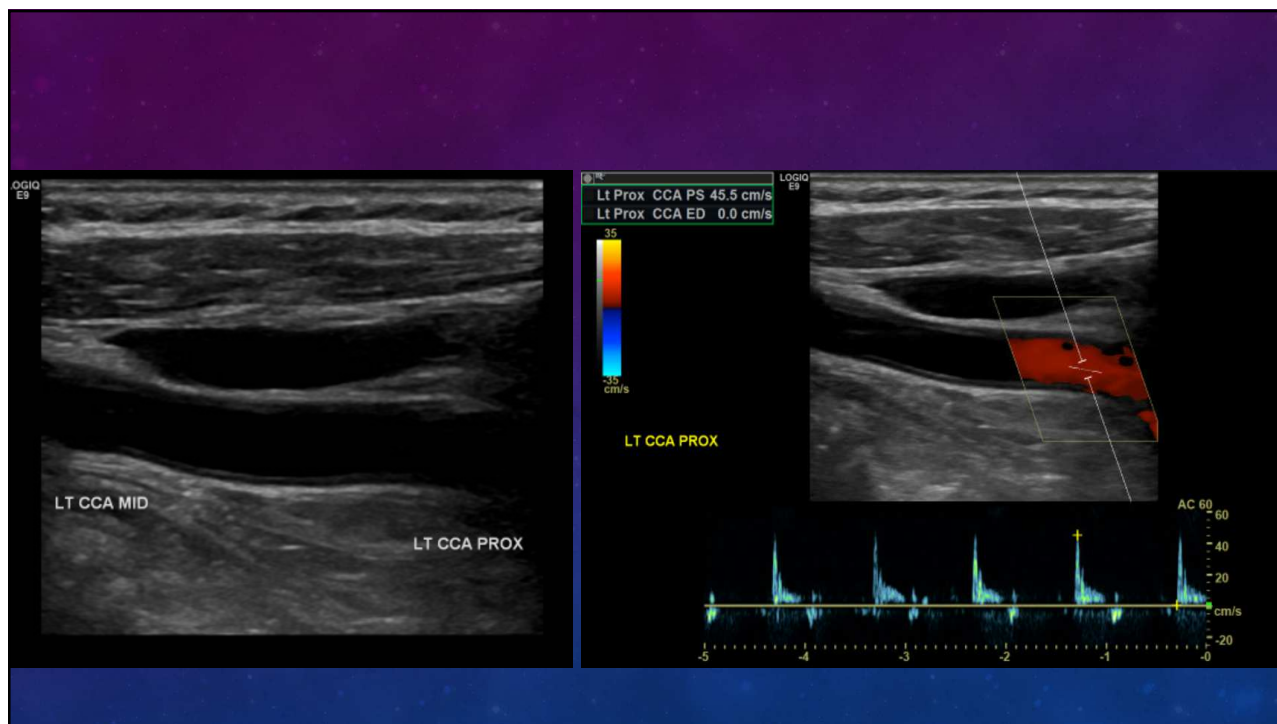
LT ICA PROX



ICA OCCLUSION

81 y.o male with occasional dizziness but Asx upon presentation.



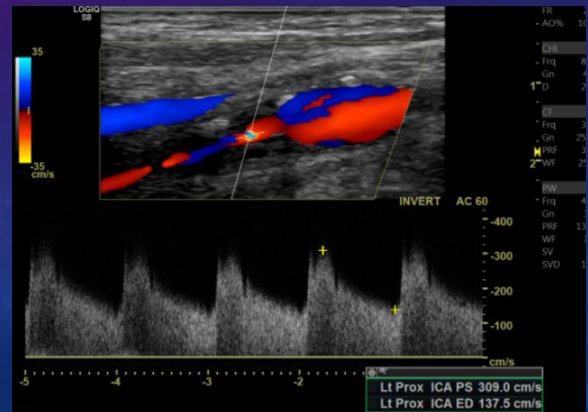


SLOW PROGRESSION OF “STRING SIGN” MORPHOLOGY

59 y.o. female with Asx carotid disease

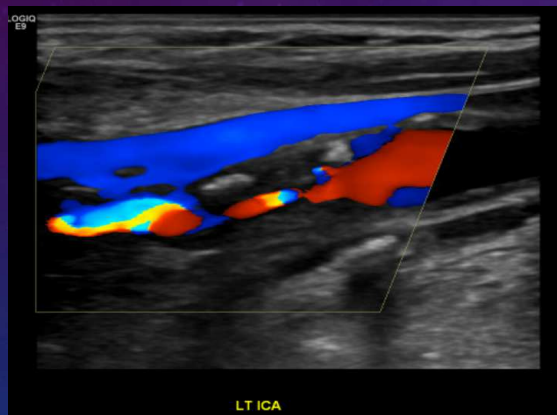


Carotid duplex of 2020 with velocities in severe range

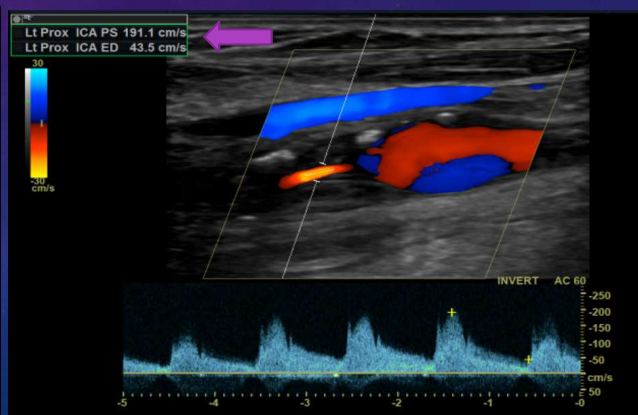


DECREASE IN PSV IN SETTING OF SEVERE ICA STENOSIS

Same patient with ICA stenosis

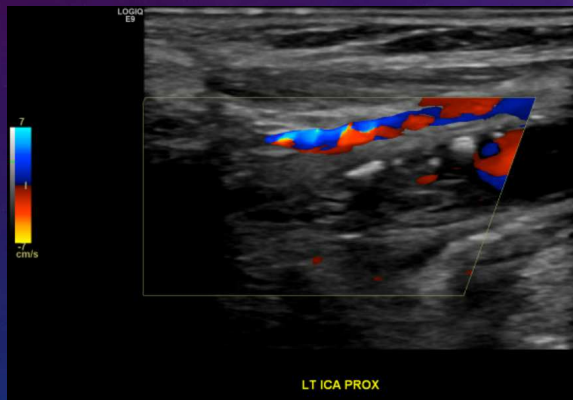


Carotid duplex 8 months later

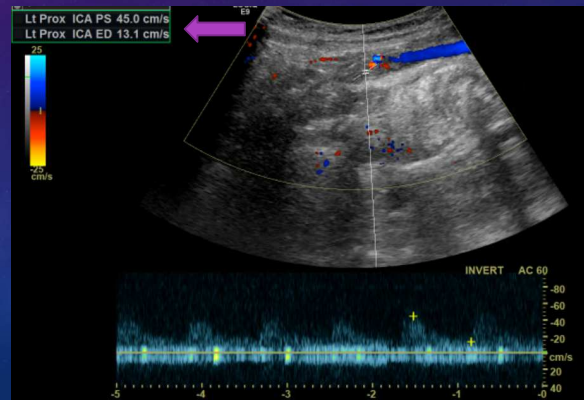


PROGRESSION OF DISEASE FROM PRIOR EXAM

Same patient

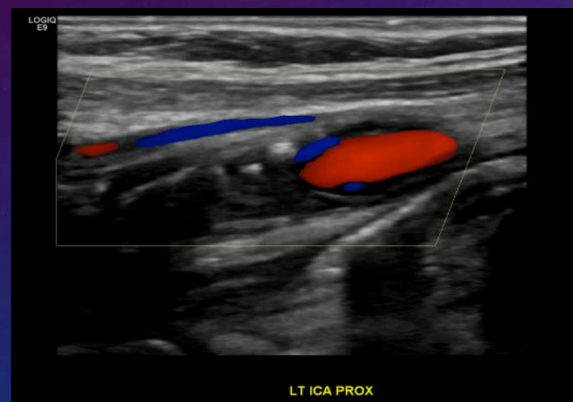


1 year from previous exam

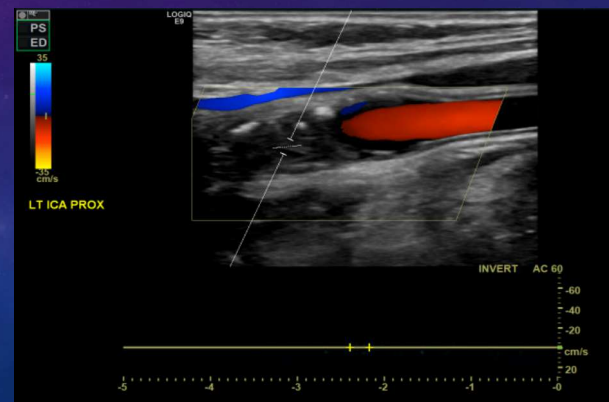


PROGRESSION TO OCCLUSION CONFIRMED BY CTA

Same patient who remained Asx throughout



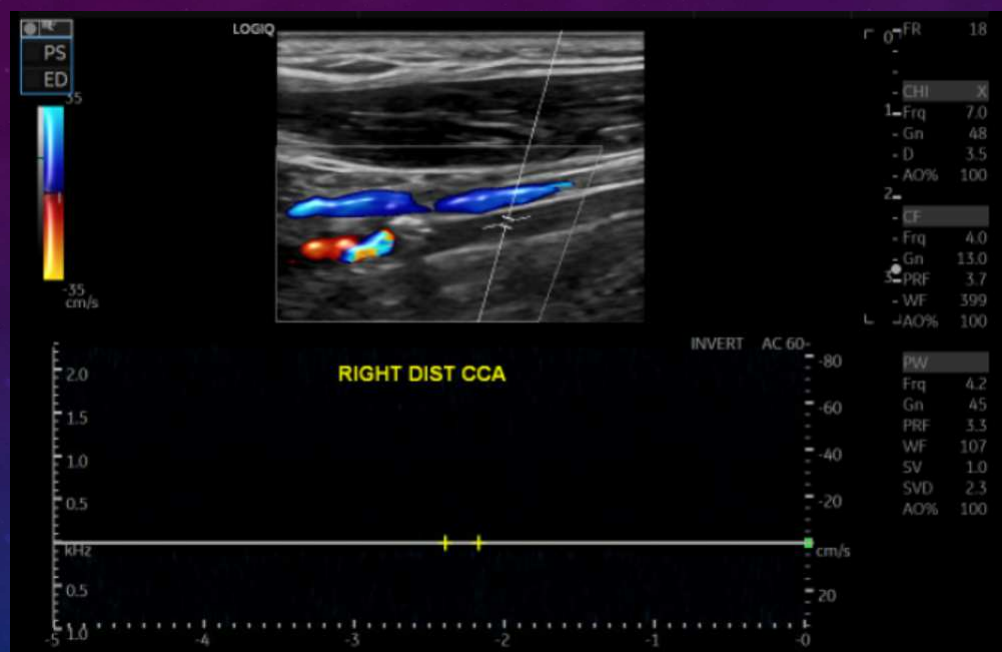
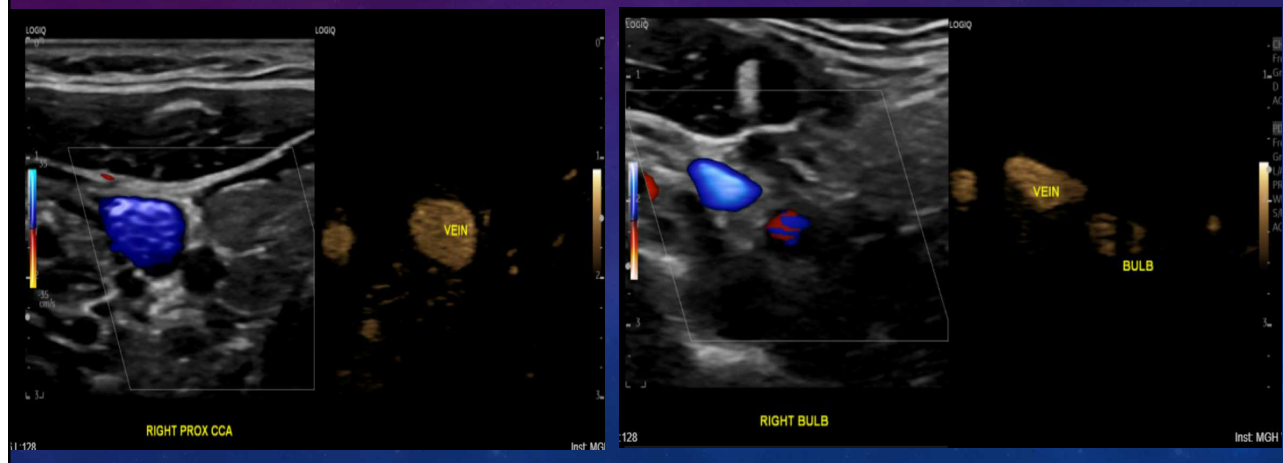
1 year from prior exam

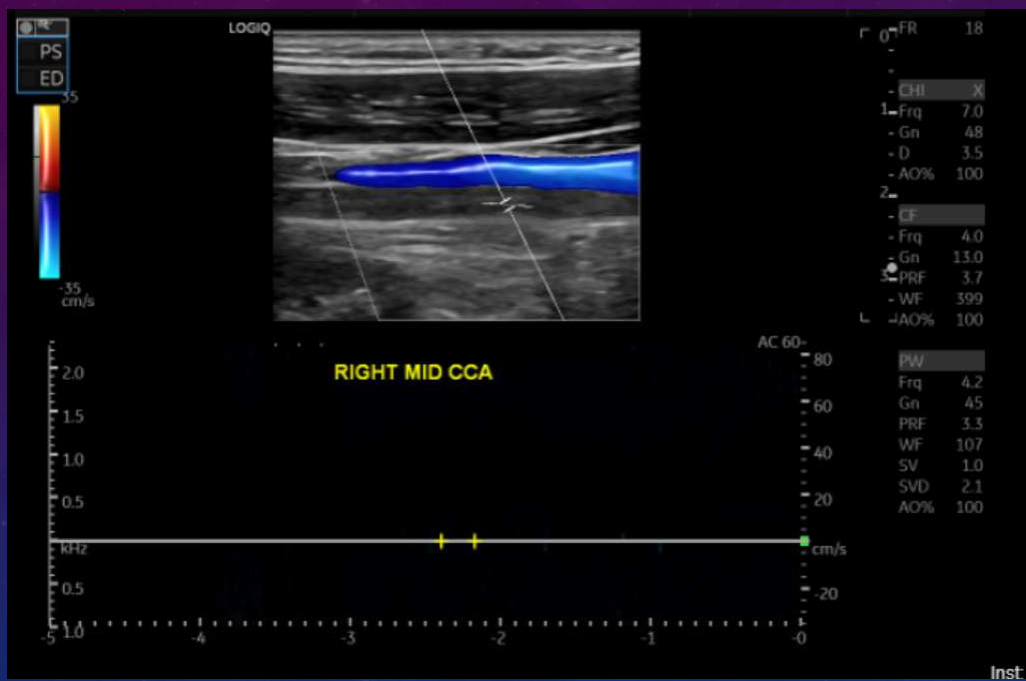


CCA OCCLUSION WITH PATENT ICA FILLING FROM RETROGRADE ECA

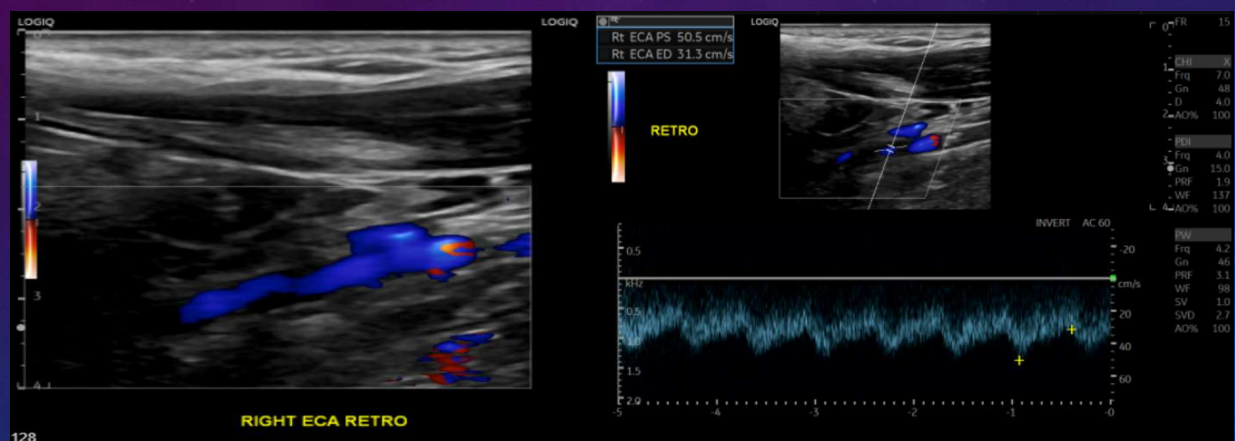
49 yo male with bilateral CCA occlusions
absent flow in proximal right CCA

Some flow noted in carotid bifurcation

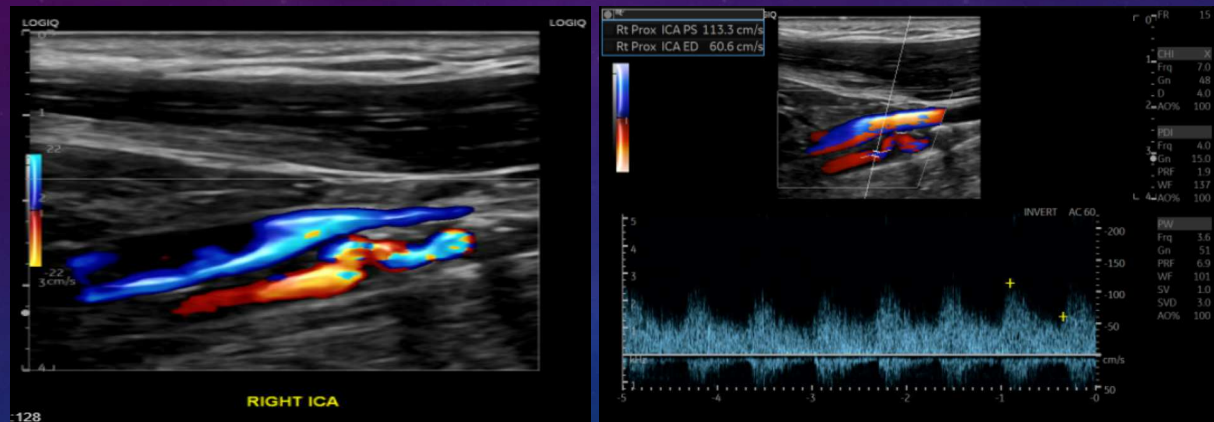




RETROGRADE ECA

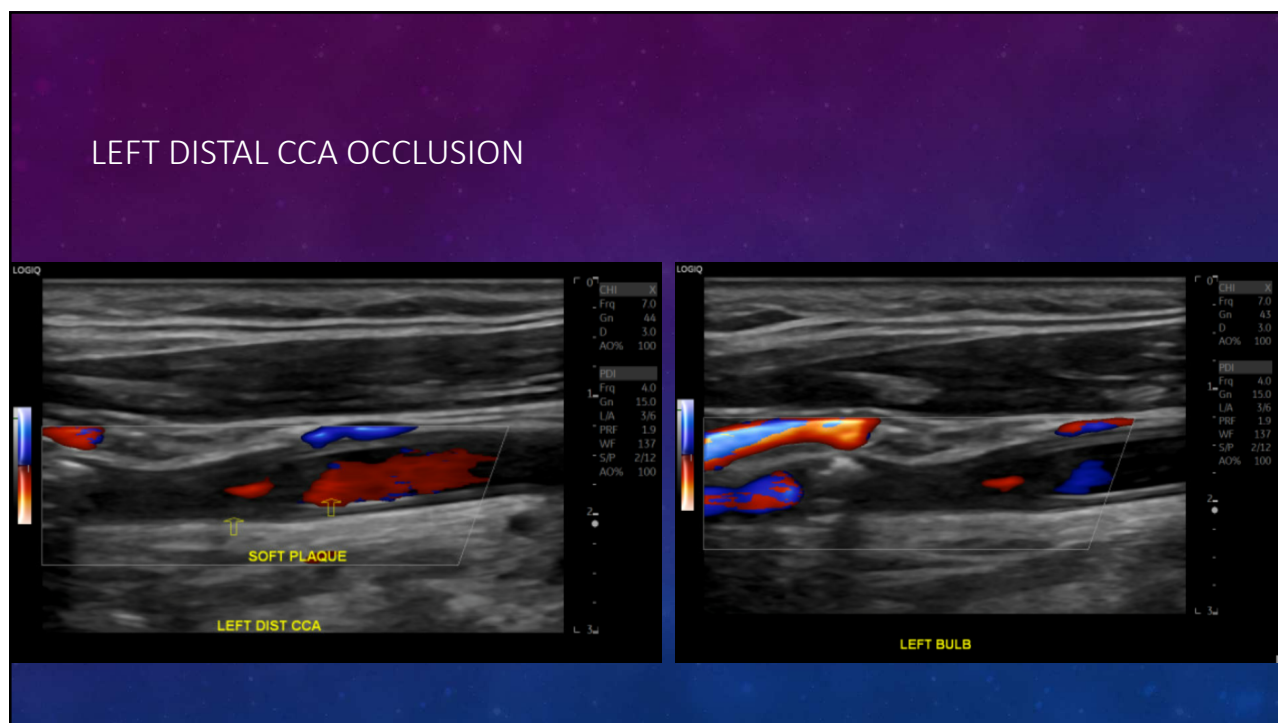
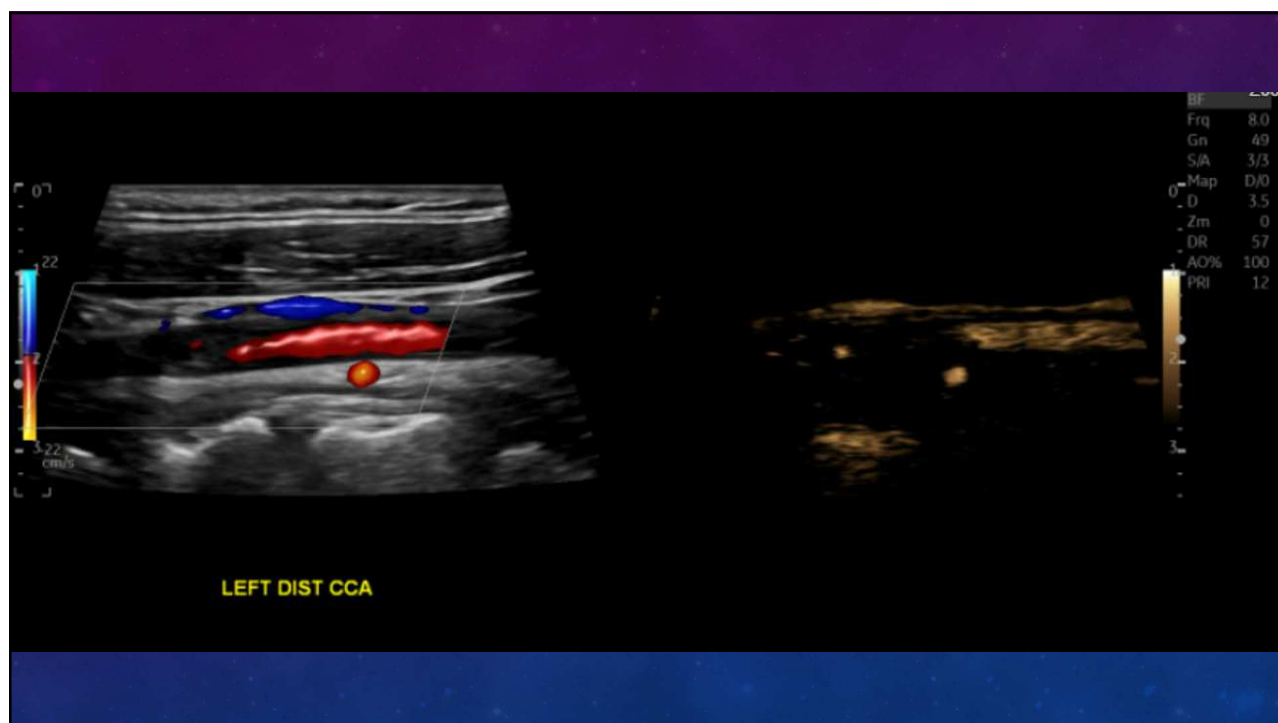


RIGHT ICA ANTEGRADE

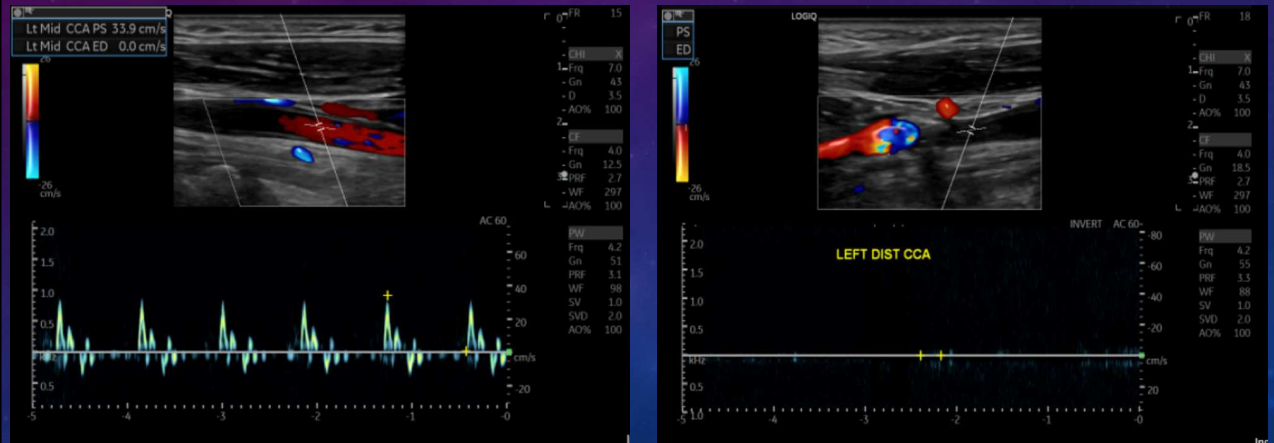


SAME PATIENT WITH KNOWN BILAT CCA OCCLUSIONS

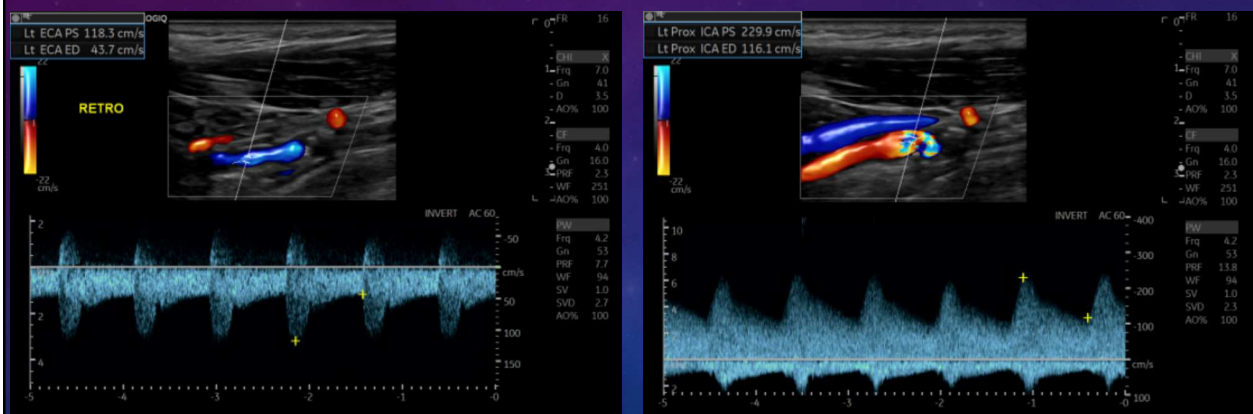




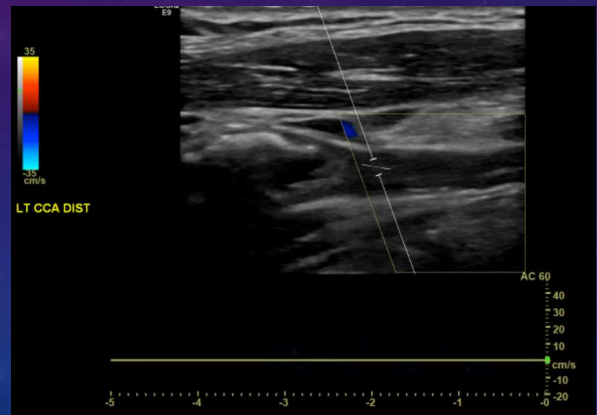
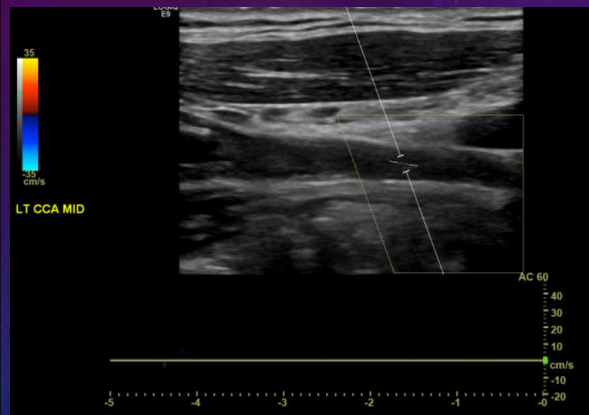
PATENT MID CCA WITH OCCLUDED DISTAL CCA



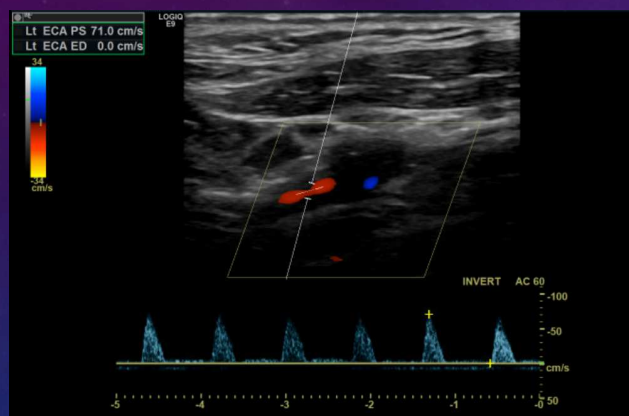
RETROGRADE LEFT ECA WITH ANTEGRADE ICA



77 YO MALE WITH ASX CAROTID DISEASE (LEFT CCA OCCLUSION)



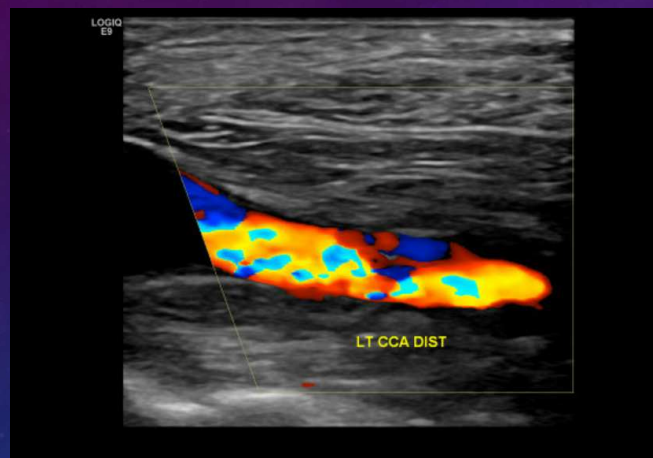
ANTEGRADE ECA



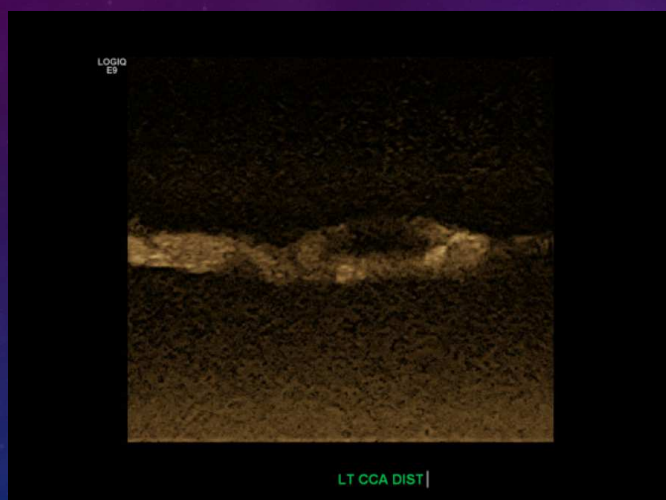
RETROGRADE ICA



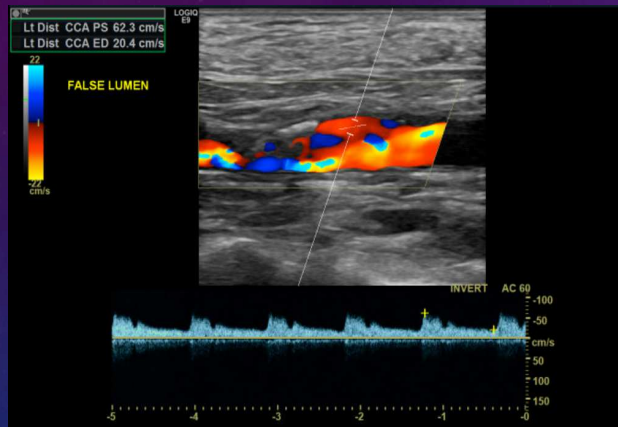
66 YO MALE EXTENSIVE RADIATION THERAPY FOR HEAD AND NECK
CANCER; ASX FOR CAROTID DISEASE



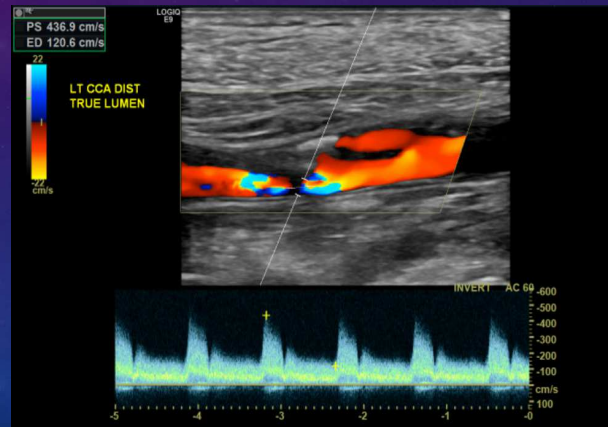
CCA DISSECTION



FALSE LUMEN



TRUE LUMEN

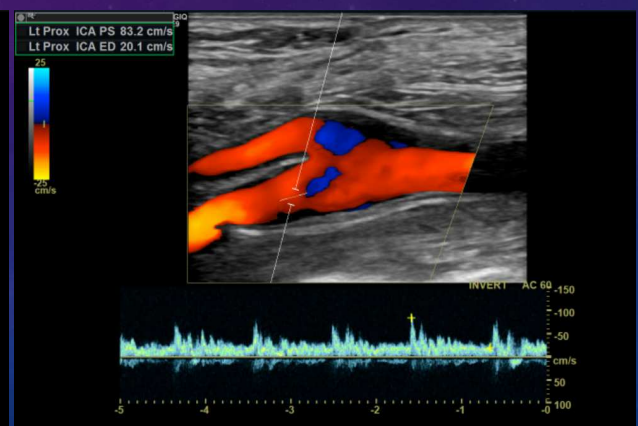


DOPPLER WAVEFORMS DISTAL TO CCA DISSECTION

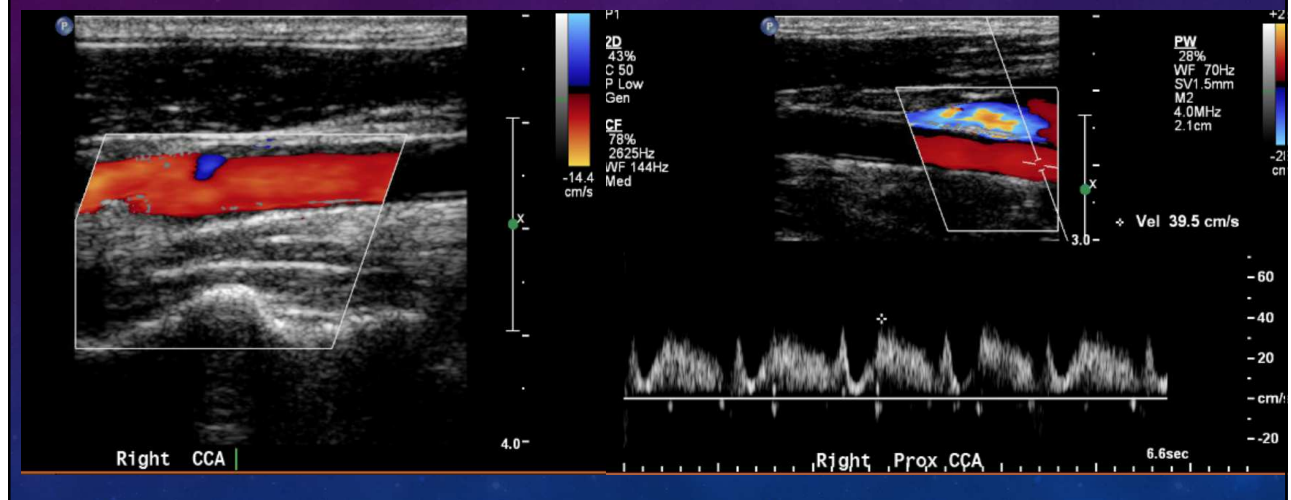
ECA



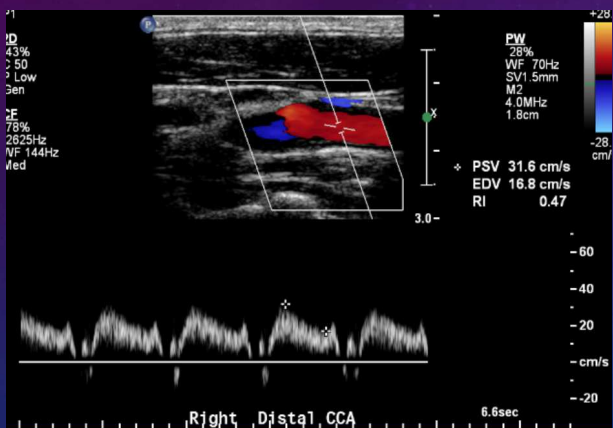
ICA



INNOMINATE ARTERY STENOSIS



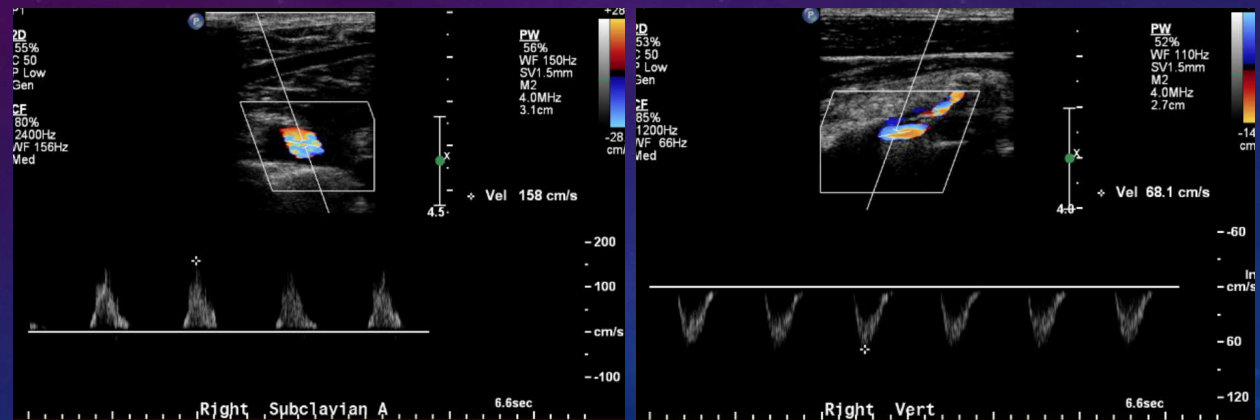
RIGHT CCA



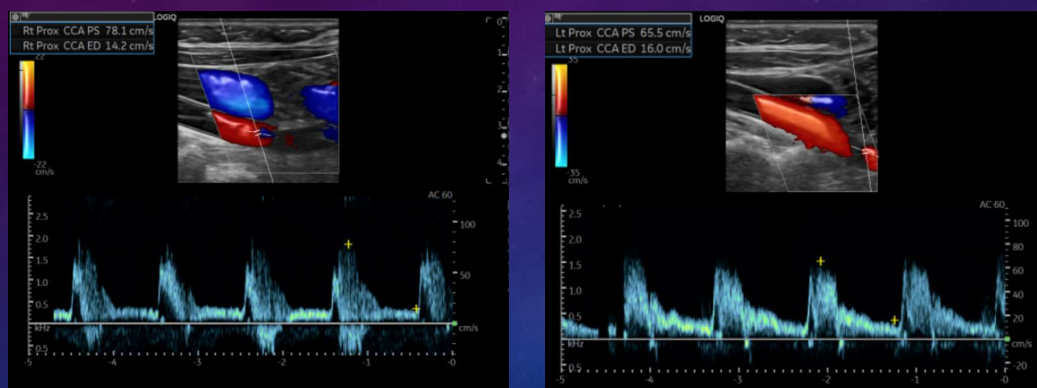
LEFT CCA



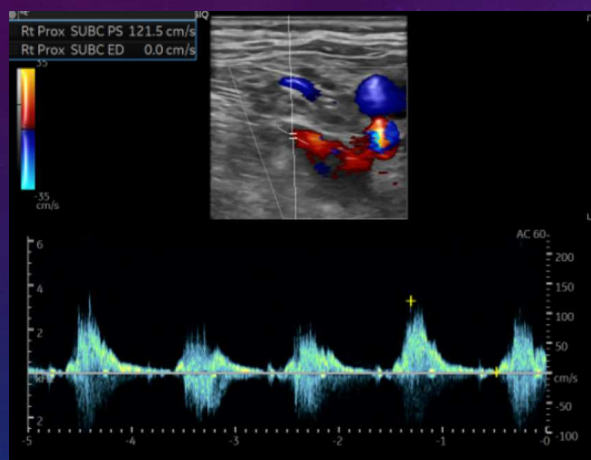
RIGHT SUBCLAVIAN (MONOPHASIC) RIGHT VERTEBRAL (RETROGRADE)



INNOMINATE ARTERY STENOSIS



RIGHT SUBCLAVIAN



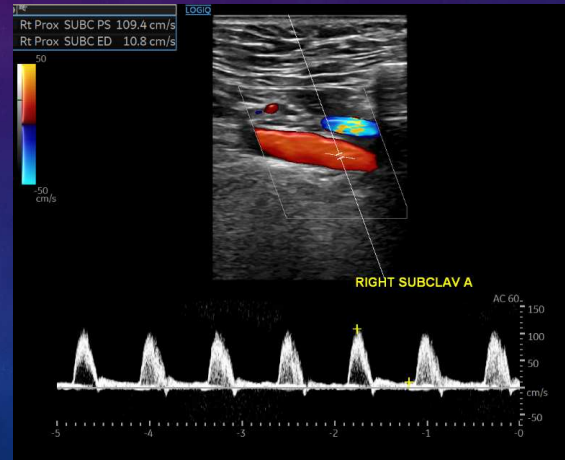
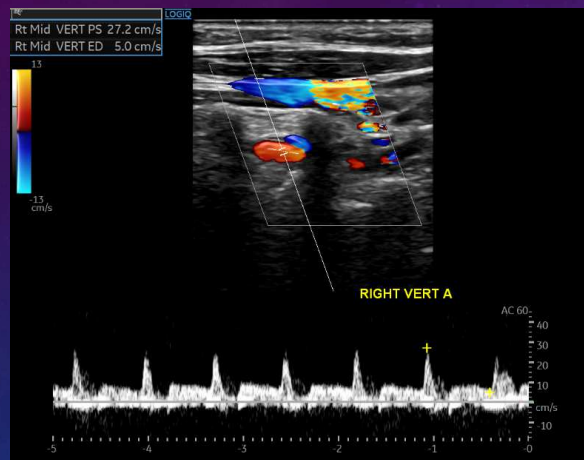
LEFT SUBCLAVIAN



INNOMINATE STENOSIS WITH SUBTLE DOWNFLOW FINDINGS



SUBCLAVIAN SAMPLED DISTAL TO LEVEL OF CLAVICLE

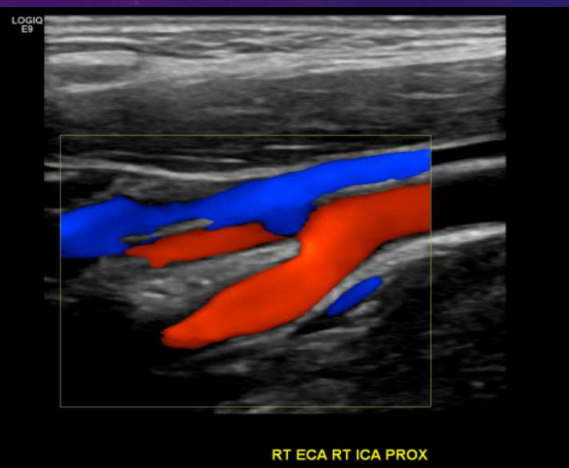


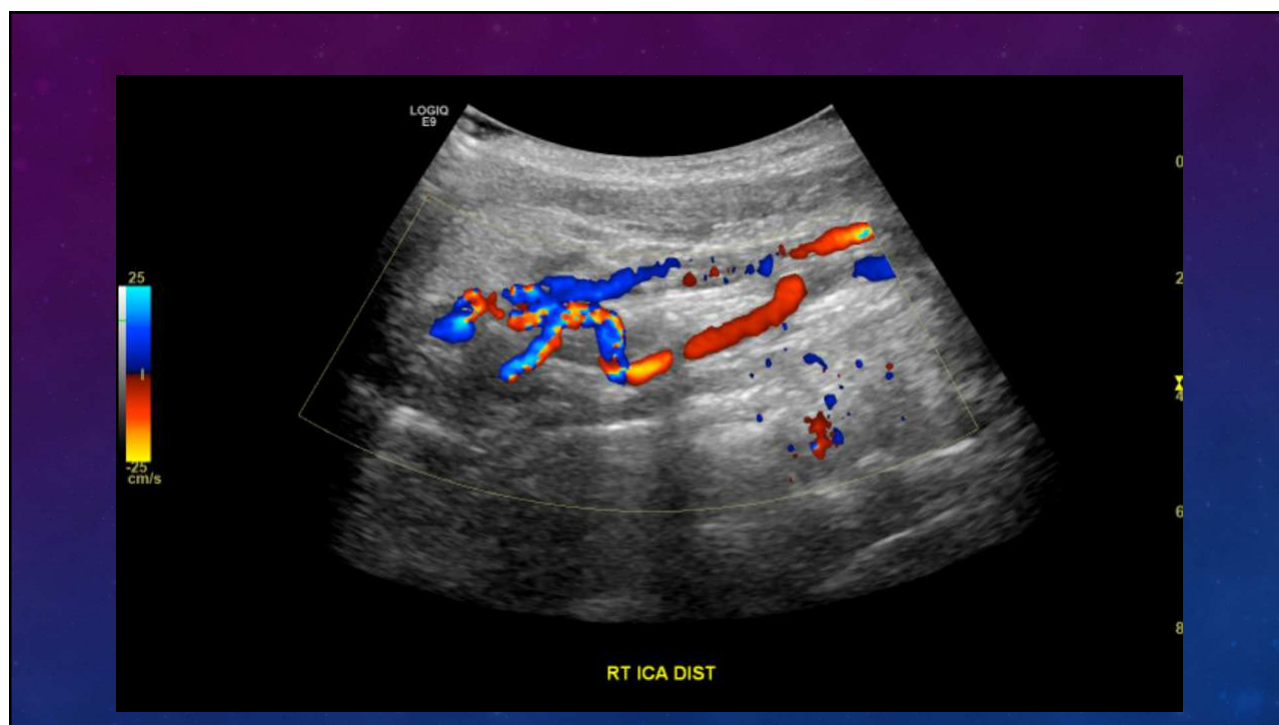
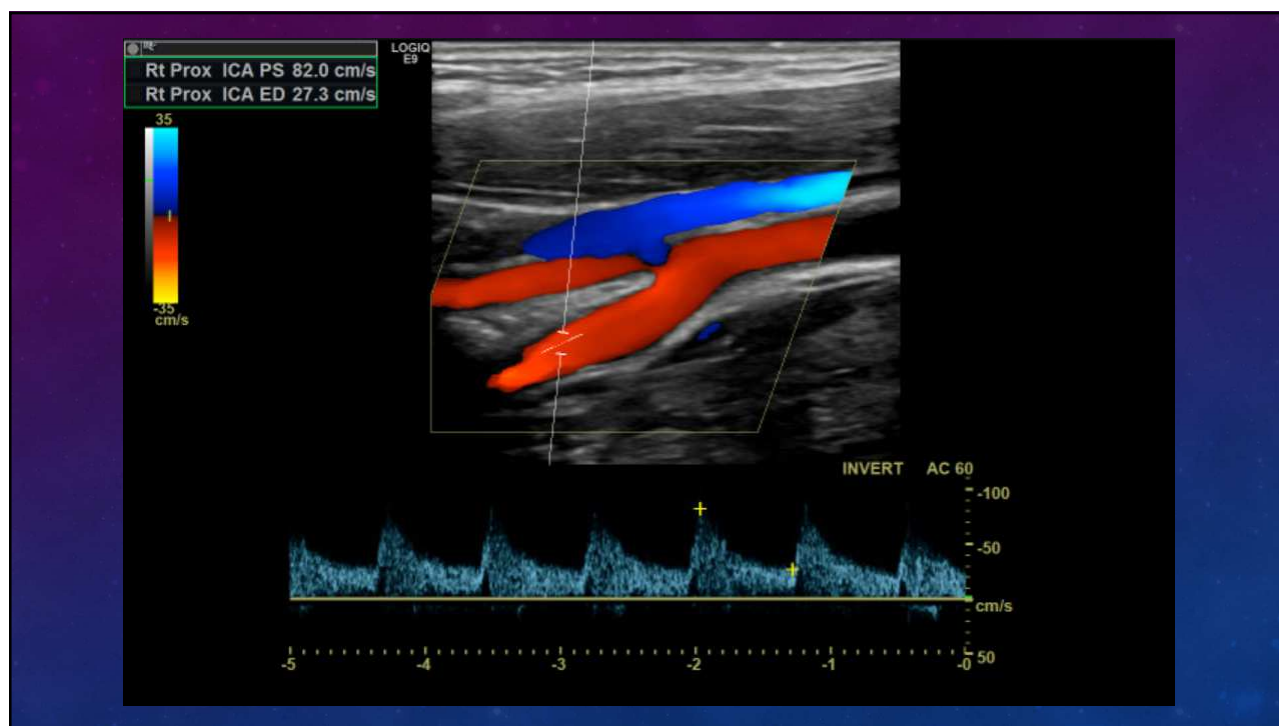
FIBROMUSCULAR DYSPLASIA (FMD)

B mode bifurcation

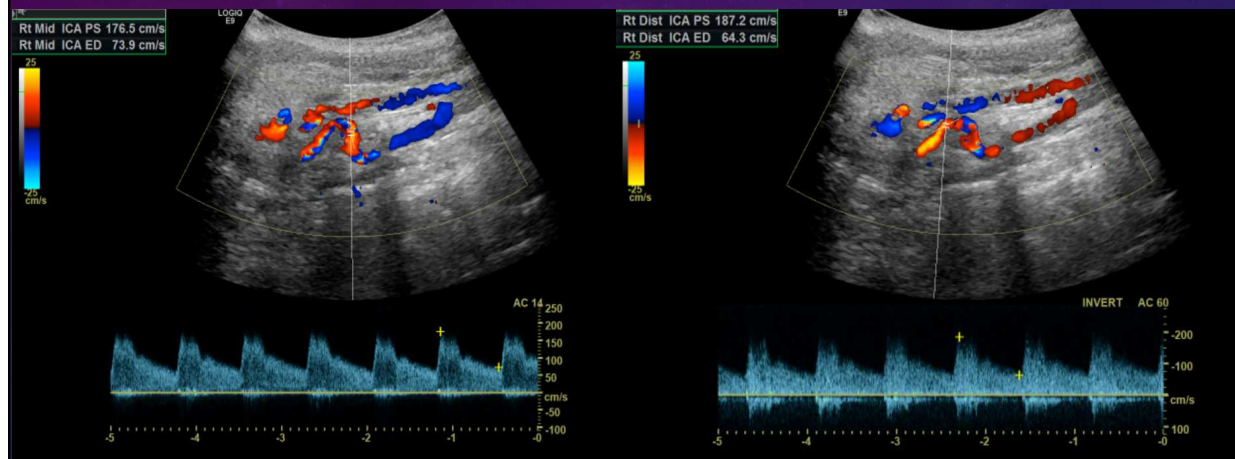


Color duplex bifurcation



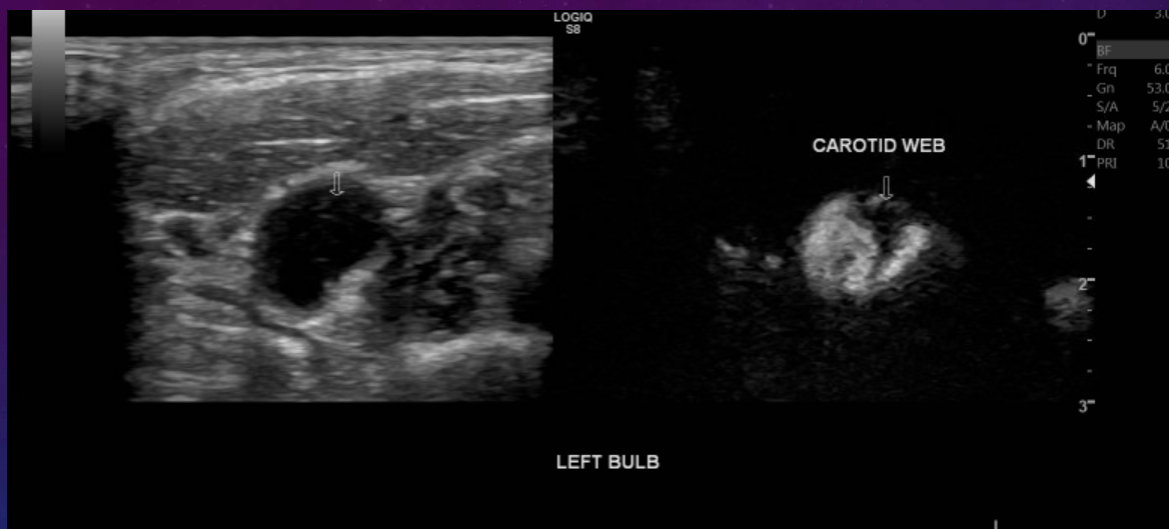


CHALLENGING DOPPLER SAMPLING AROUND A CURVE

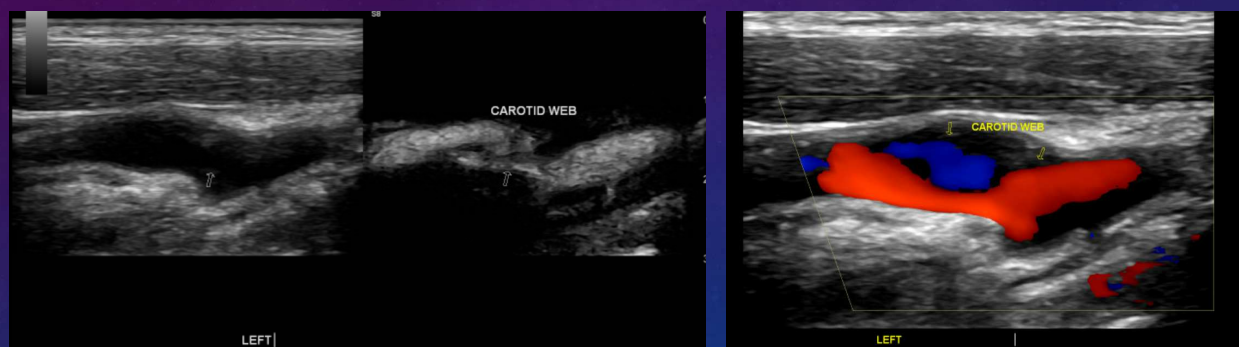


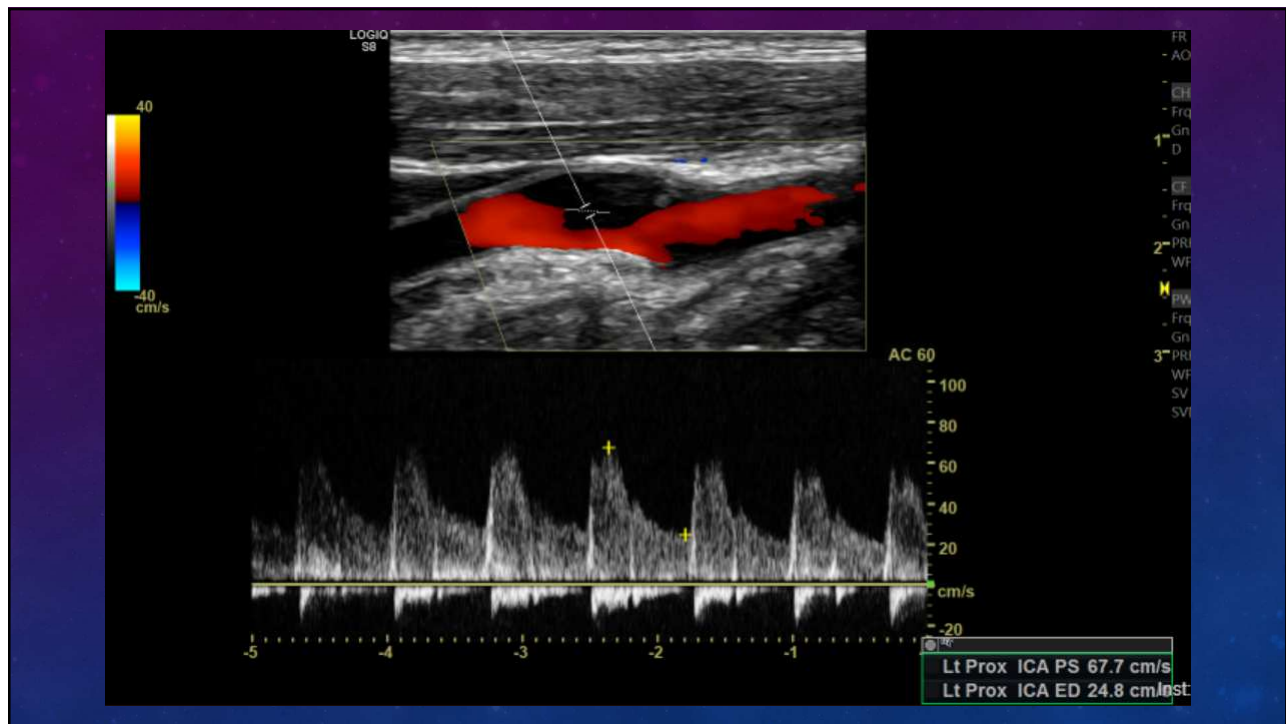
CAROTID WEB





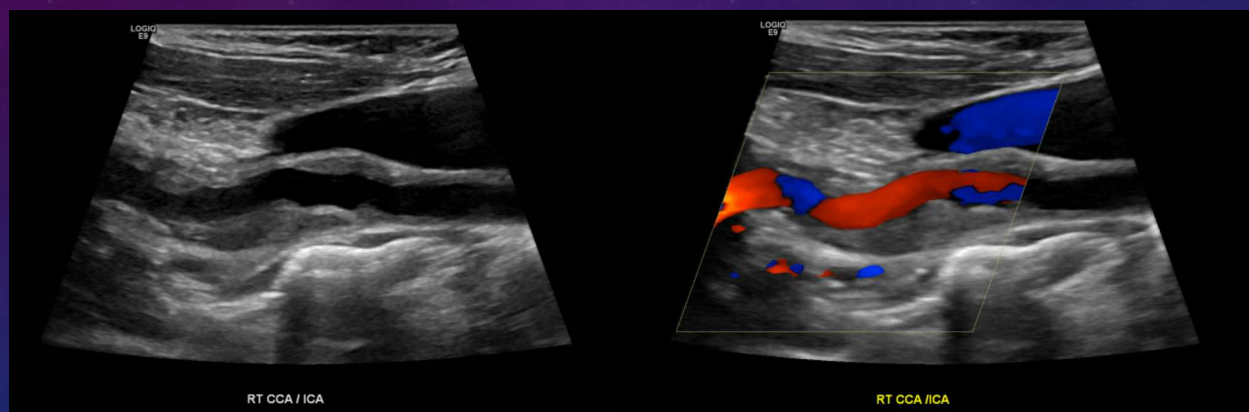
CAROTID WEB



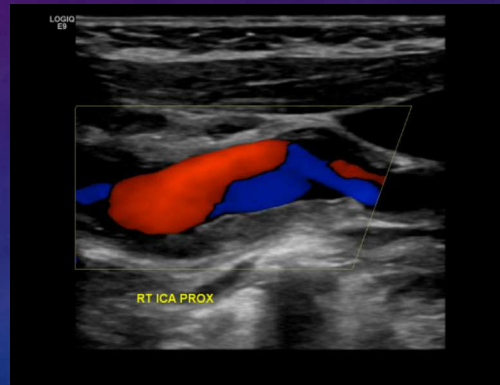
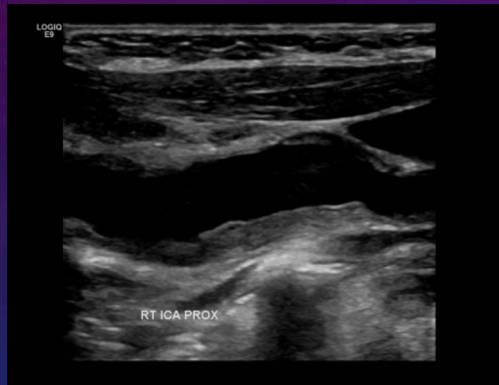


MURAL THROMBUS VS. SOFT PLAQUE

2019

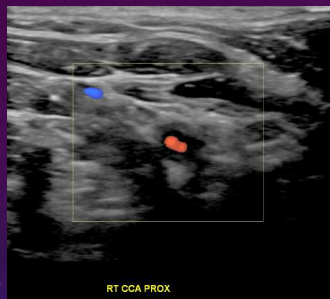


SAME PATIENT 2021 (AFTER ANTICOAGULATION THERAPY)

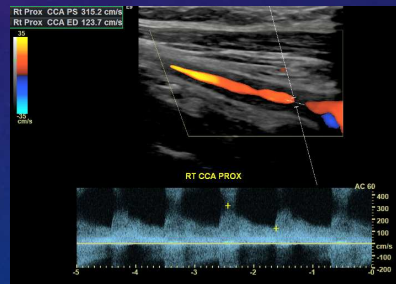
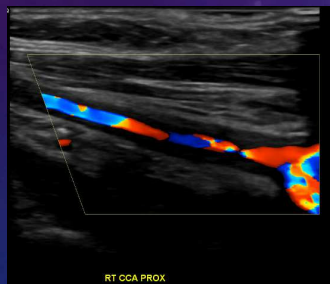


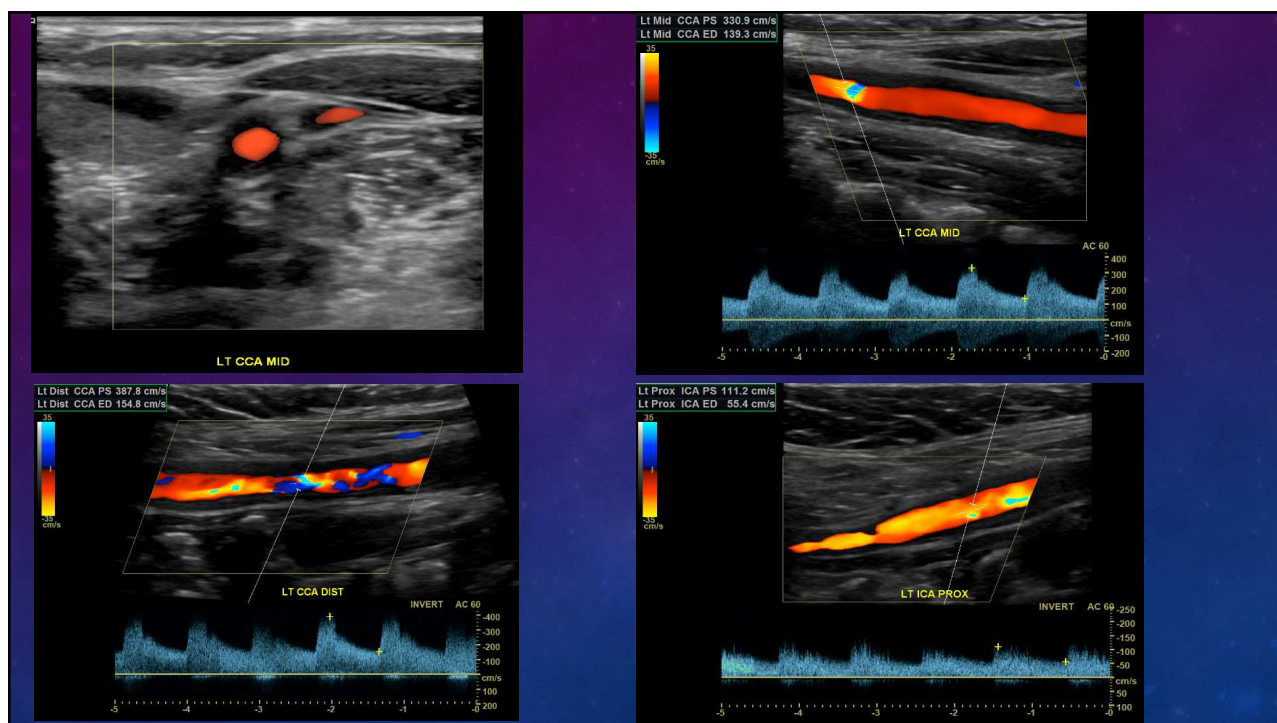
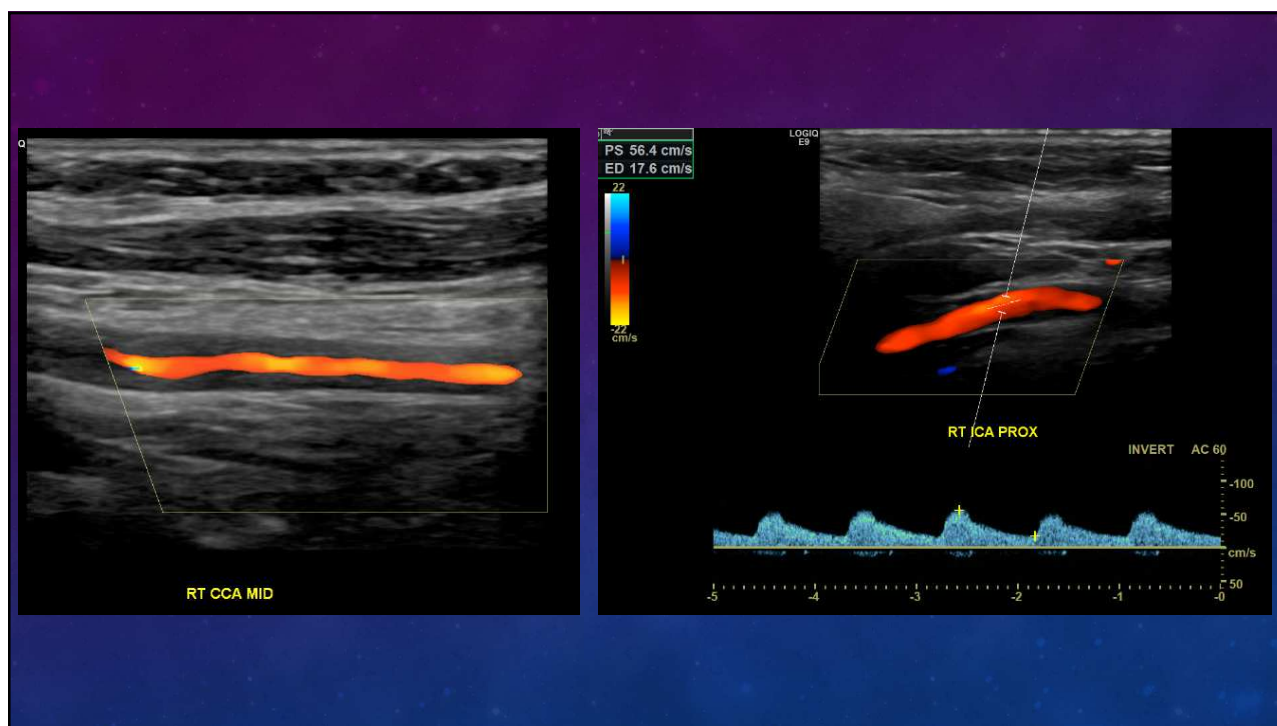
TAKAYASU ARTERITIS

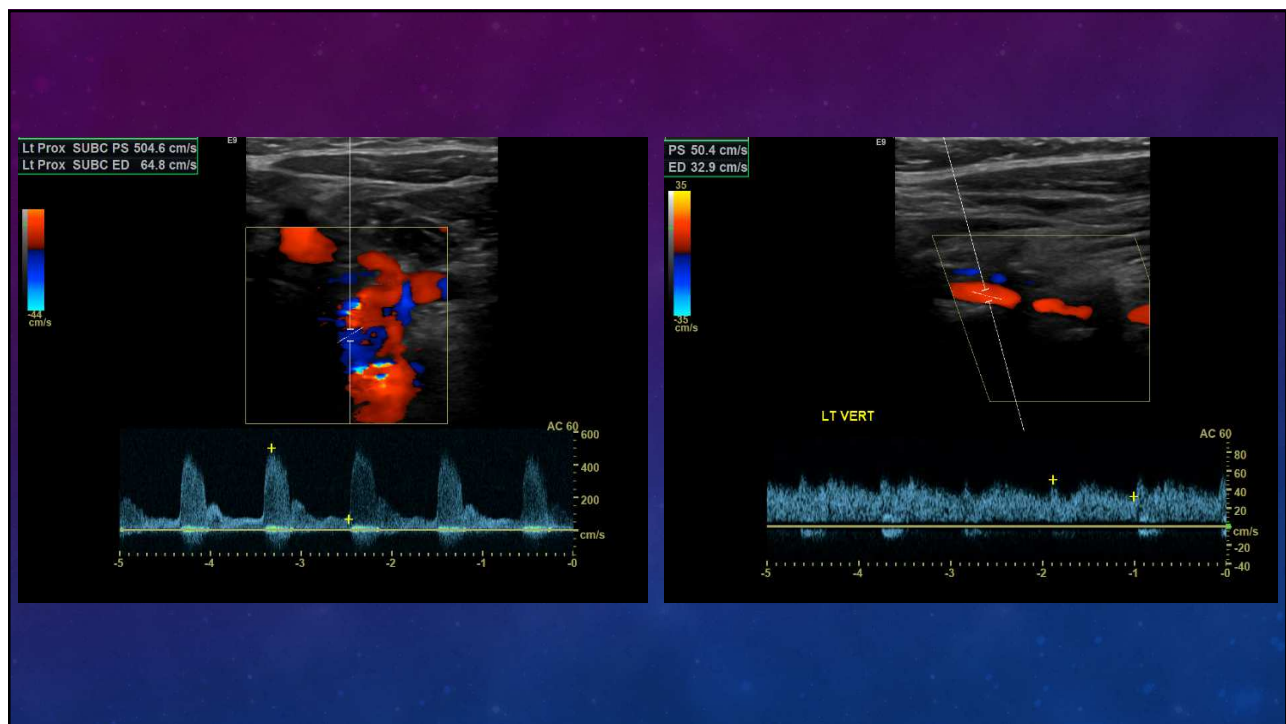
Halo sign



No real plaque seen







THANK YOU

I'M HERE FOR MY CAROTID ULTRASOUND

