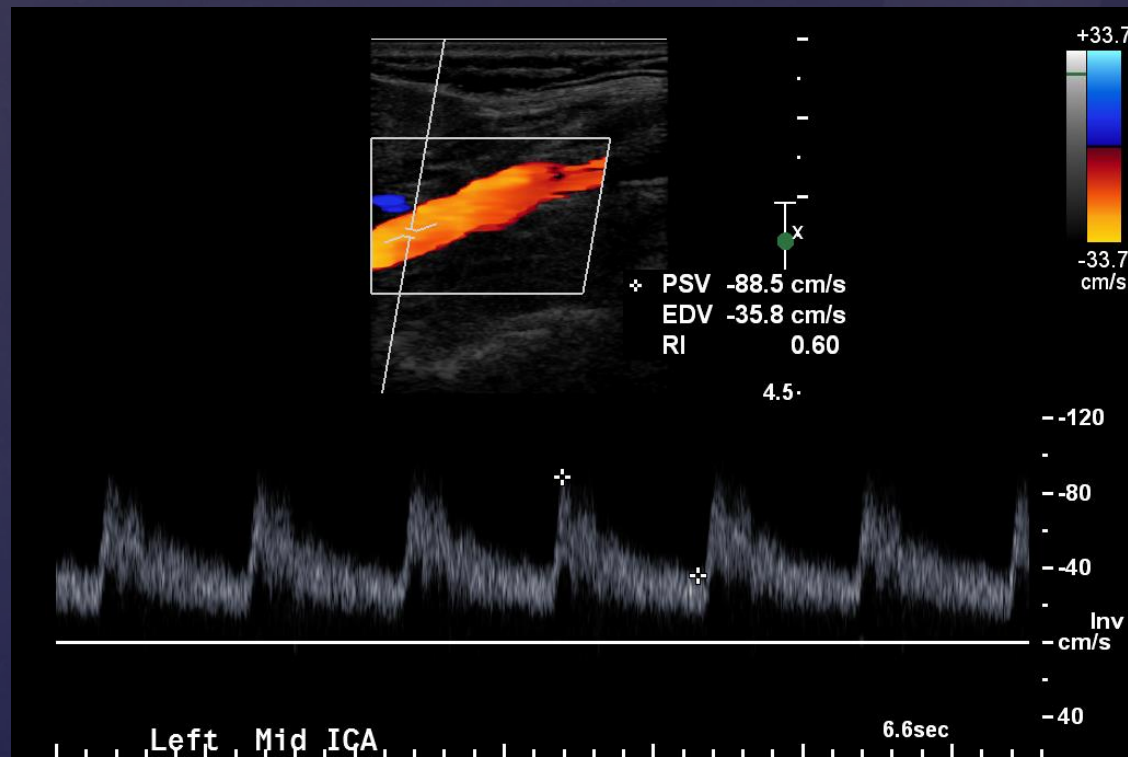


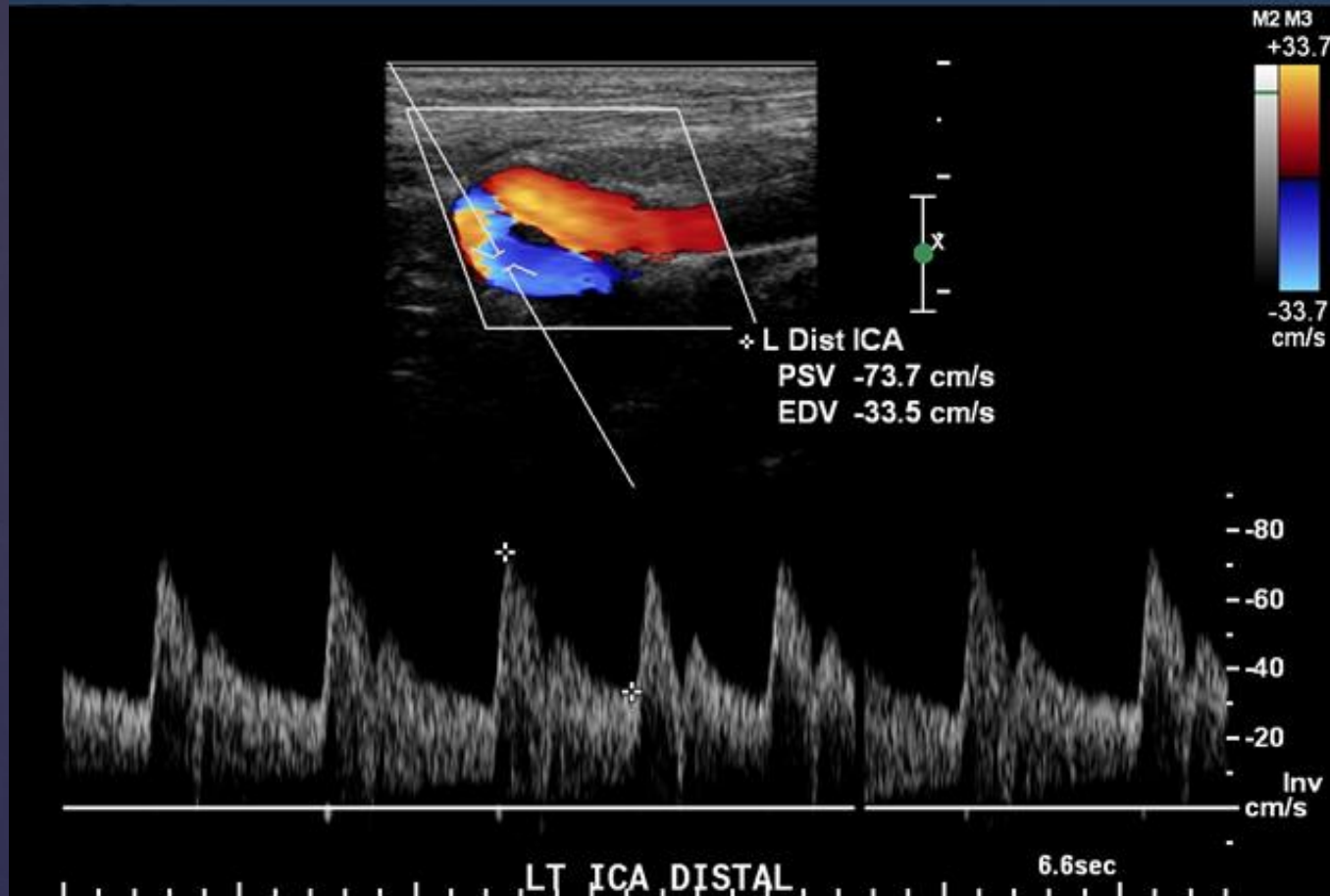
# *AIUM Image Library: Extracranial Cerebrovascular System*



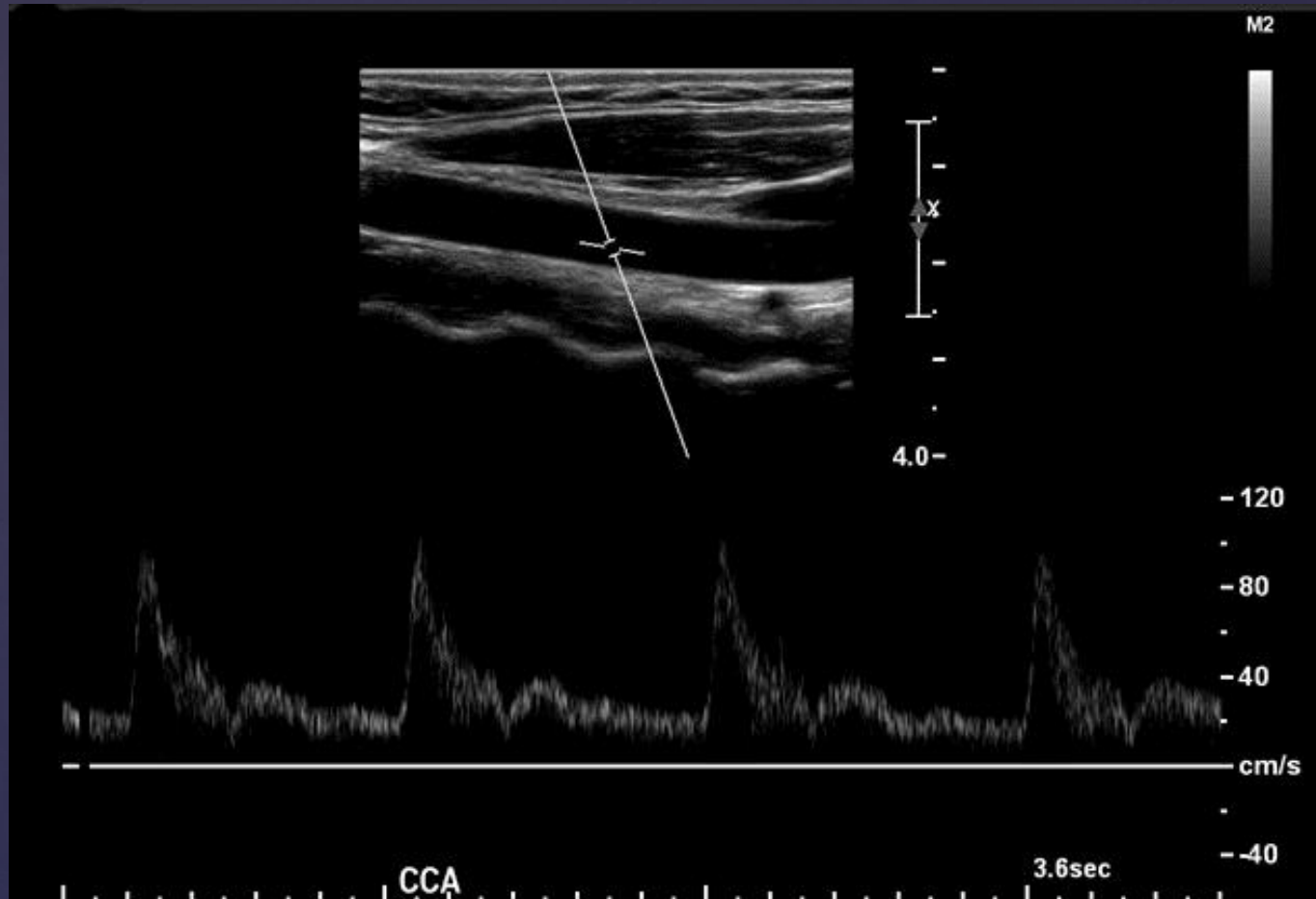


Angle correction should be parallel to the vessel wall or in line with the color lumen.

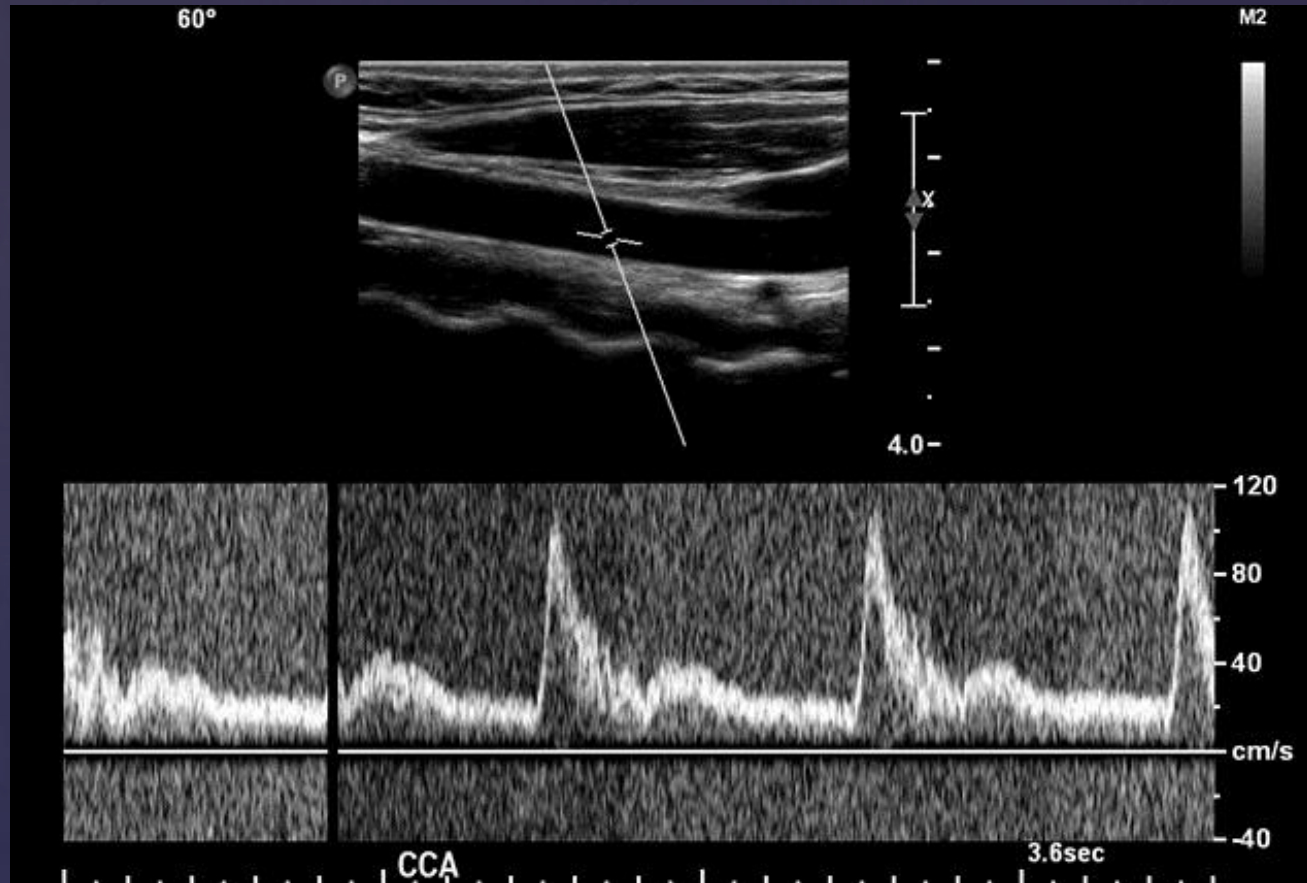
The angle between the direction of flowing blood and the applied Doppler signal should not exceed 60°.



Deviate from protocol only when it is unavoidable as with this tortuous vessel.



Undergaining may affect velocity measurements.



Overgaining may also affect velocity measurements.



Obtain long axis, gray scale images of the common carotid artery.





Image the bifurcation of the carotid artery,  
in a long axis plane.

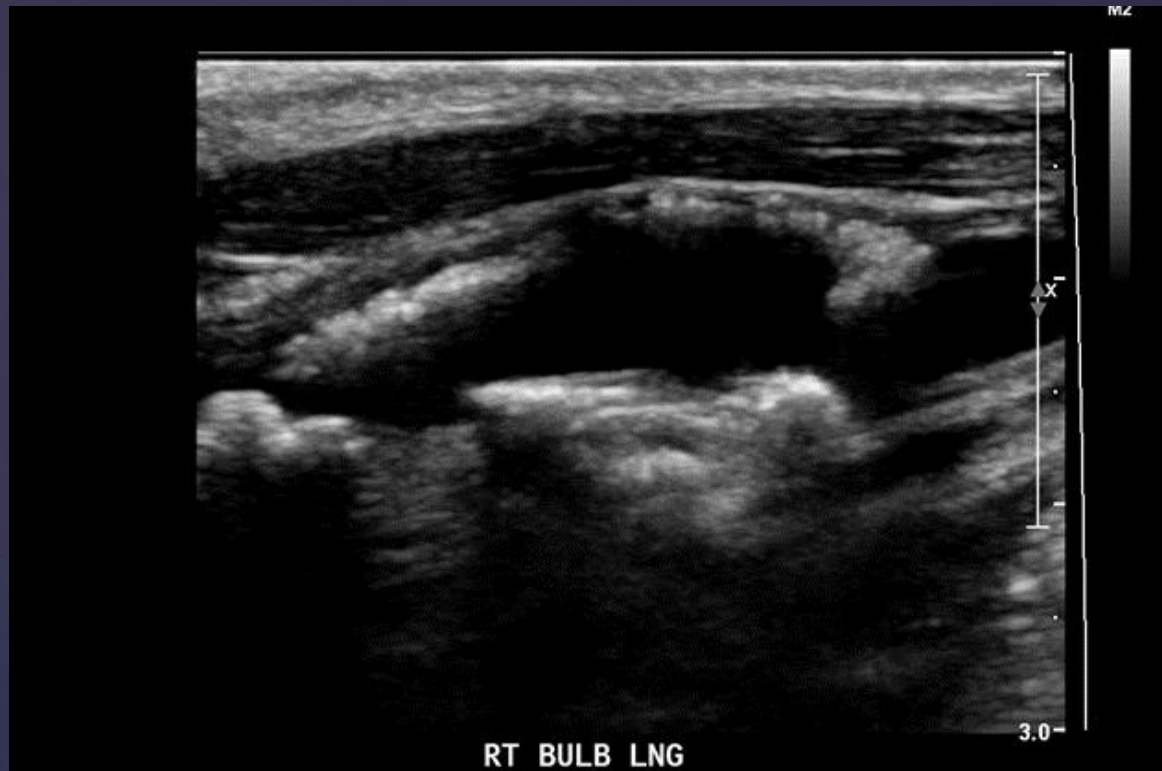


Image the internal carotid artery in long axis.

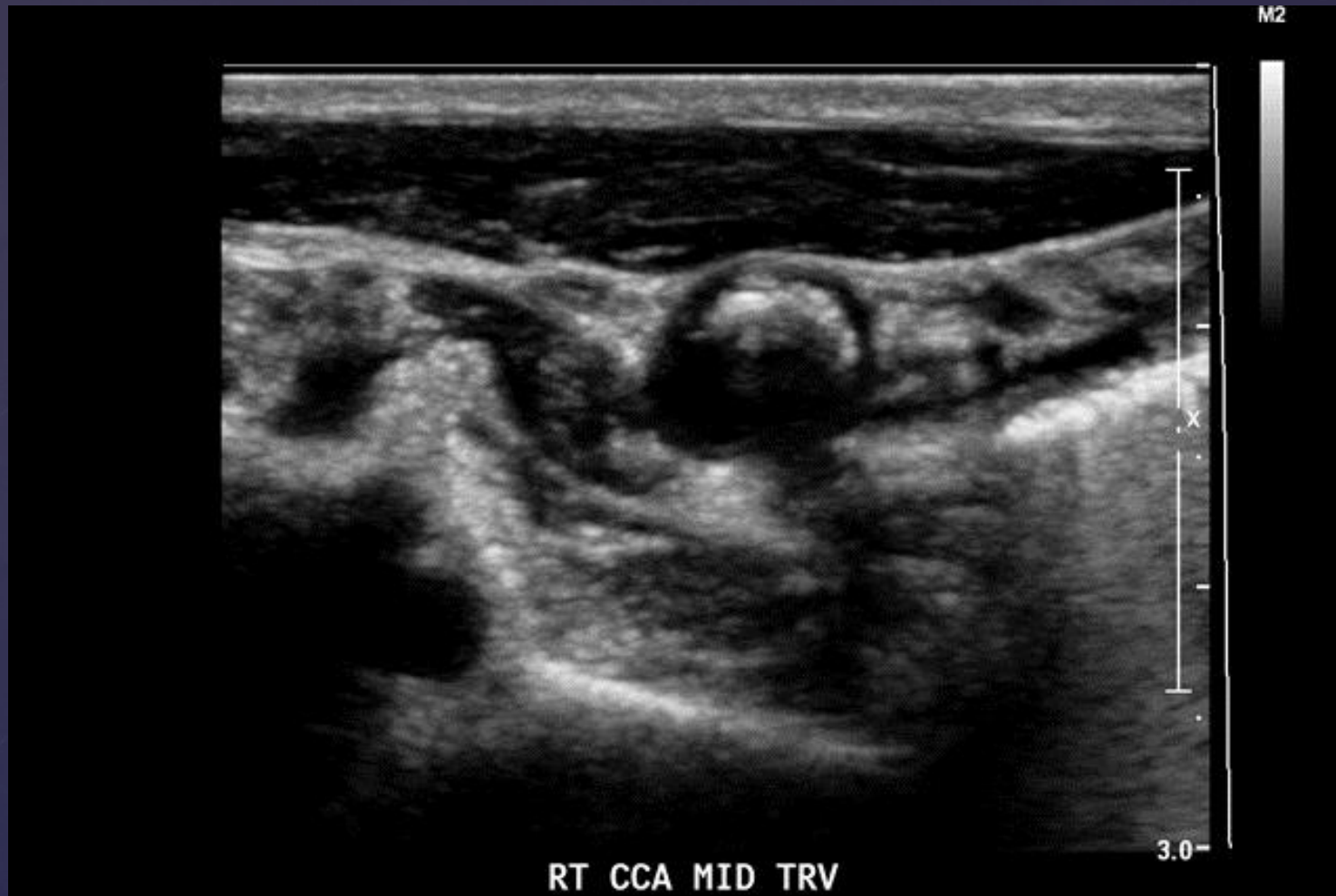




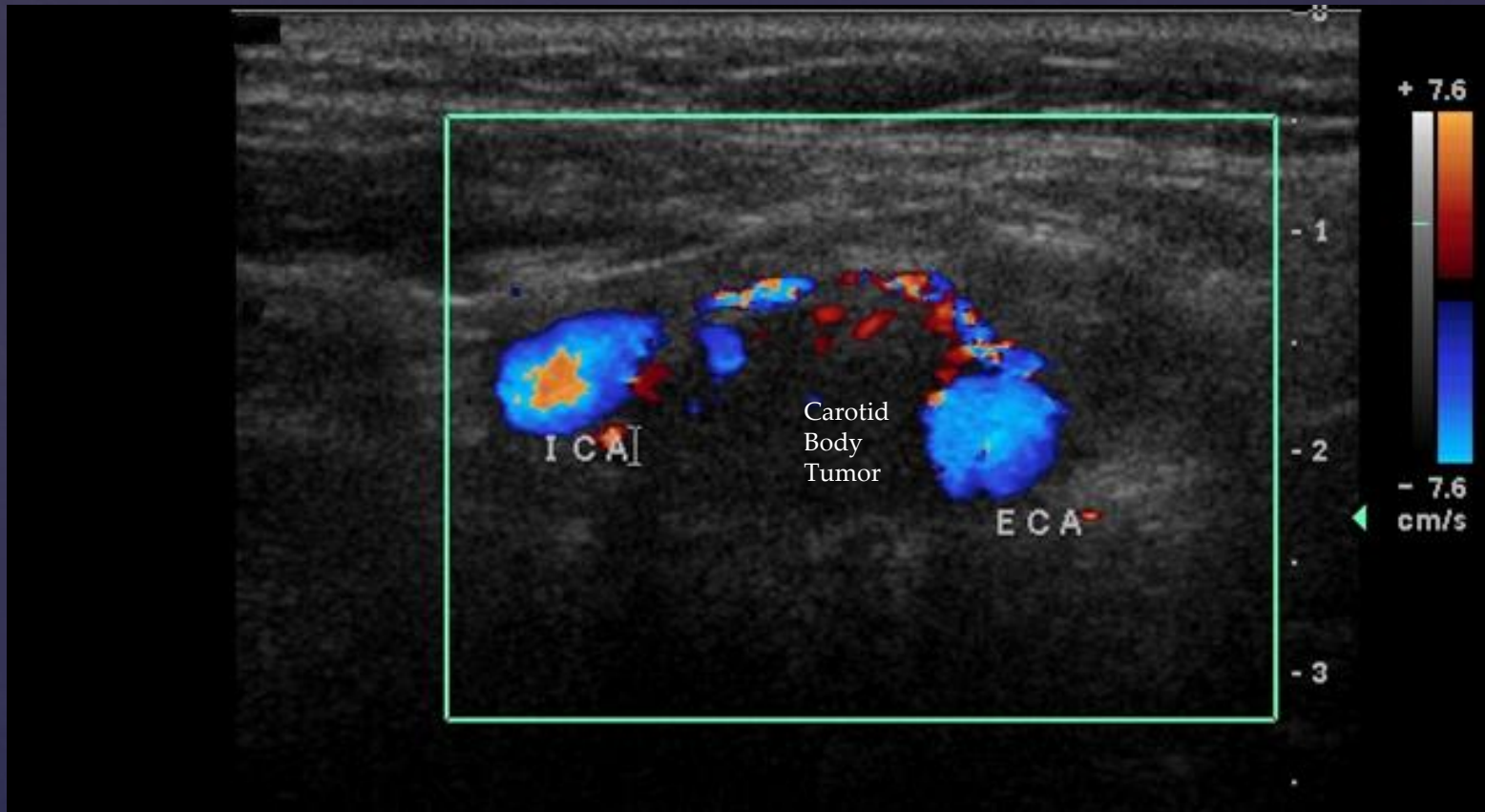
Obtain a short axis image of the proximal internal carotid artery.



Document the extent, location, and characteristics of atherosclerotic plaque in both longitudinal ...



... and transverse planes.

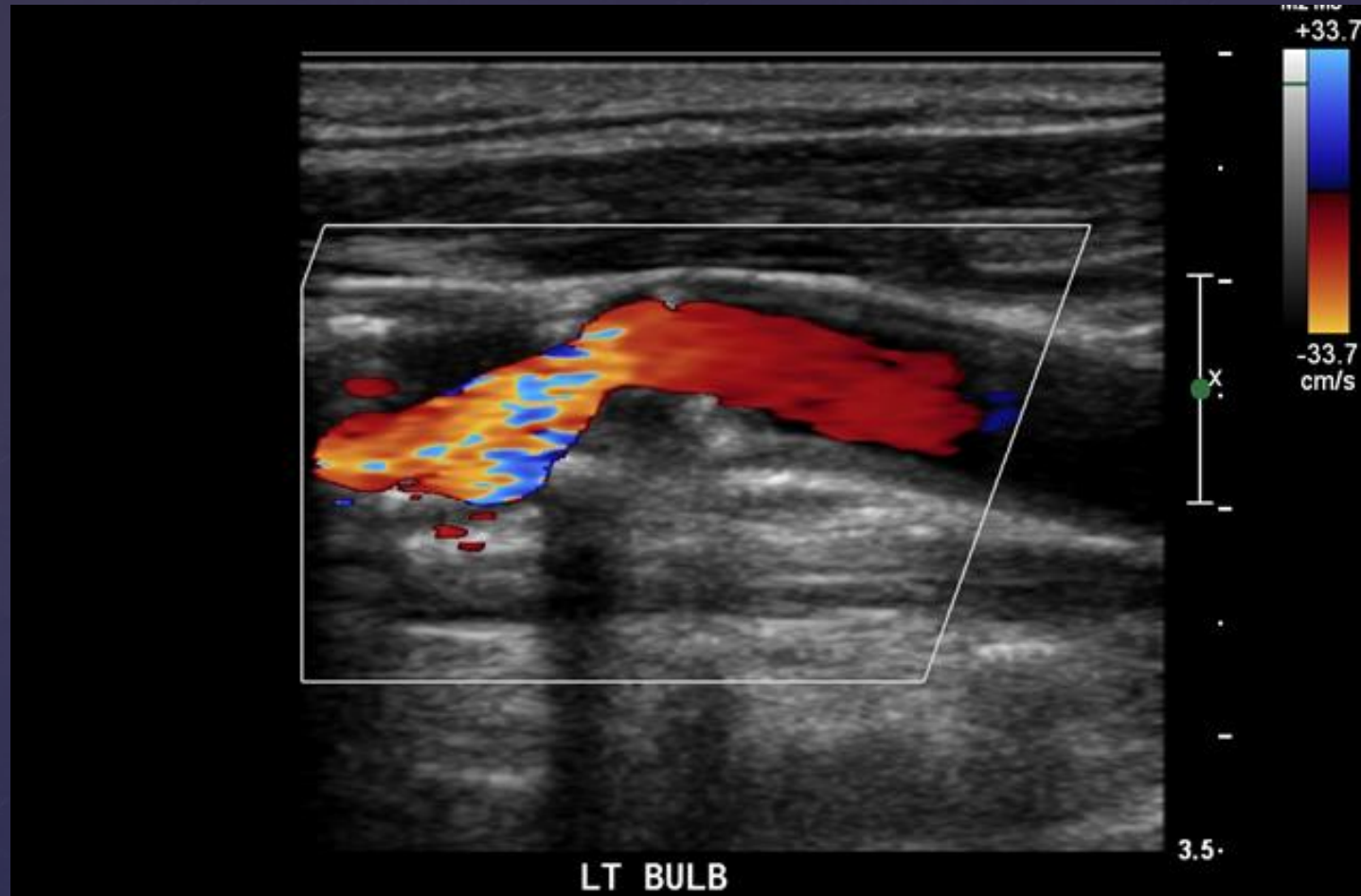


Document significant perivascular abnormalities.



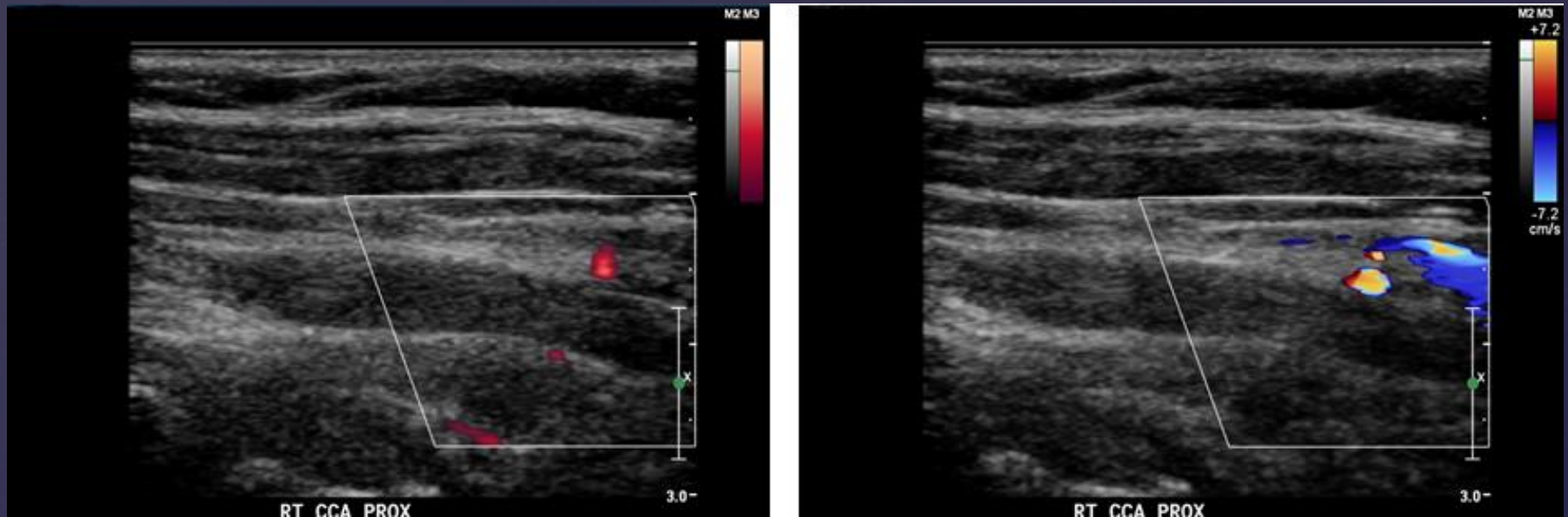
Filling of the normal lumen may be documented using appropriate color Doppler technique.





Color images may be recorded to show flow disturbances associated with stenosis.





A color and/or power Doppler image should be obtained to confirm an occlusion.



Spectral Doppler recording at the level of the proximal common carotid artery.



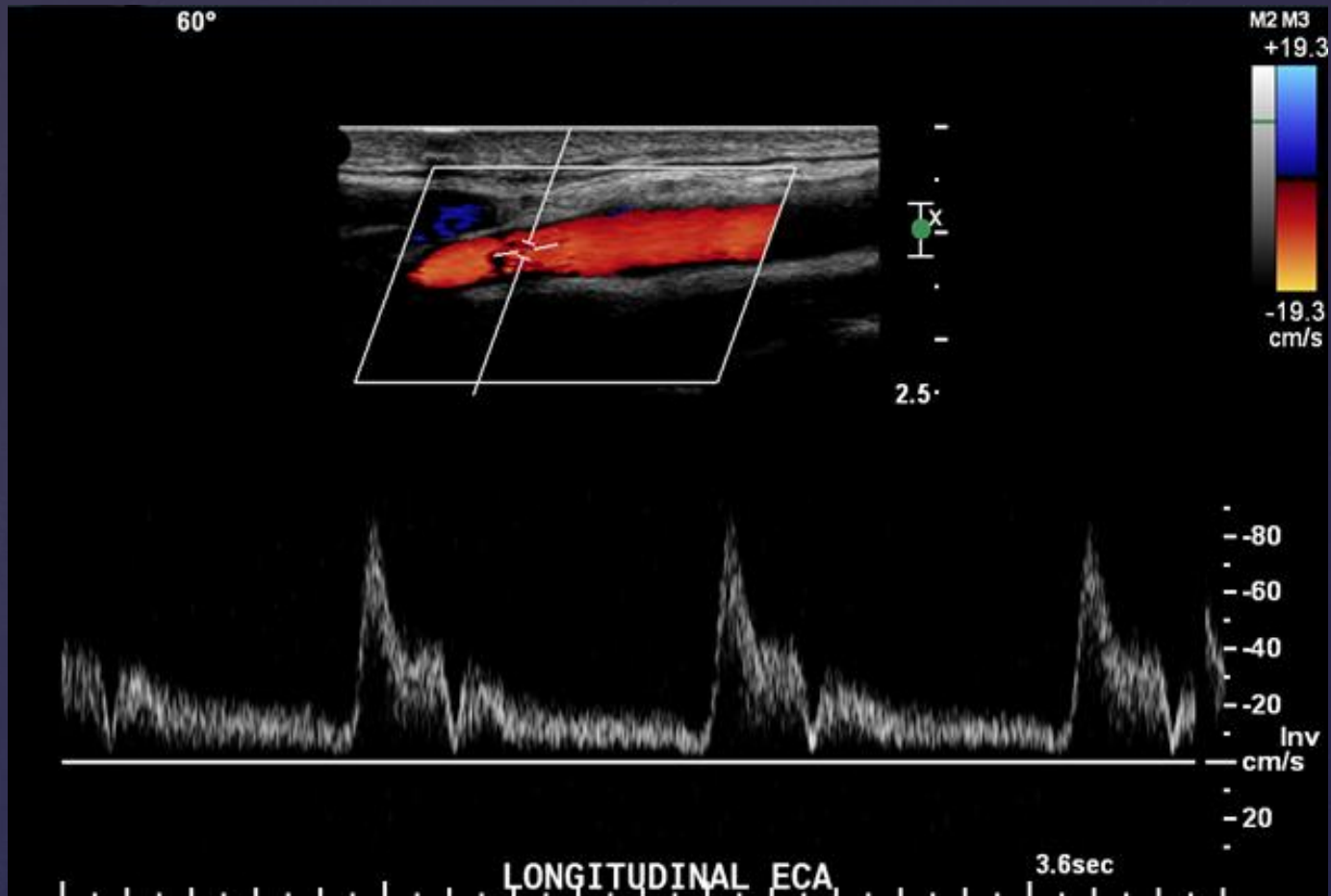
Spectral Doppler recording 2-3 centimeters below the bifurcation.



Spectral Doppler recording at the level of the proximal internal carotid artery.

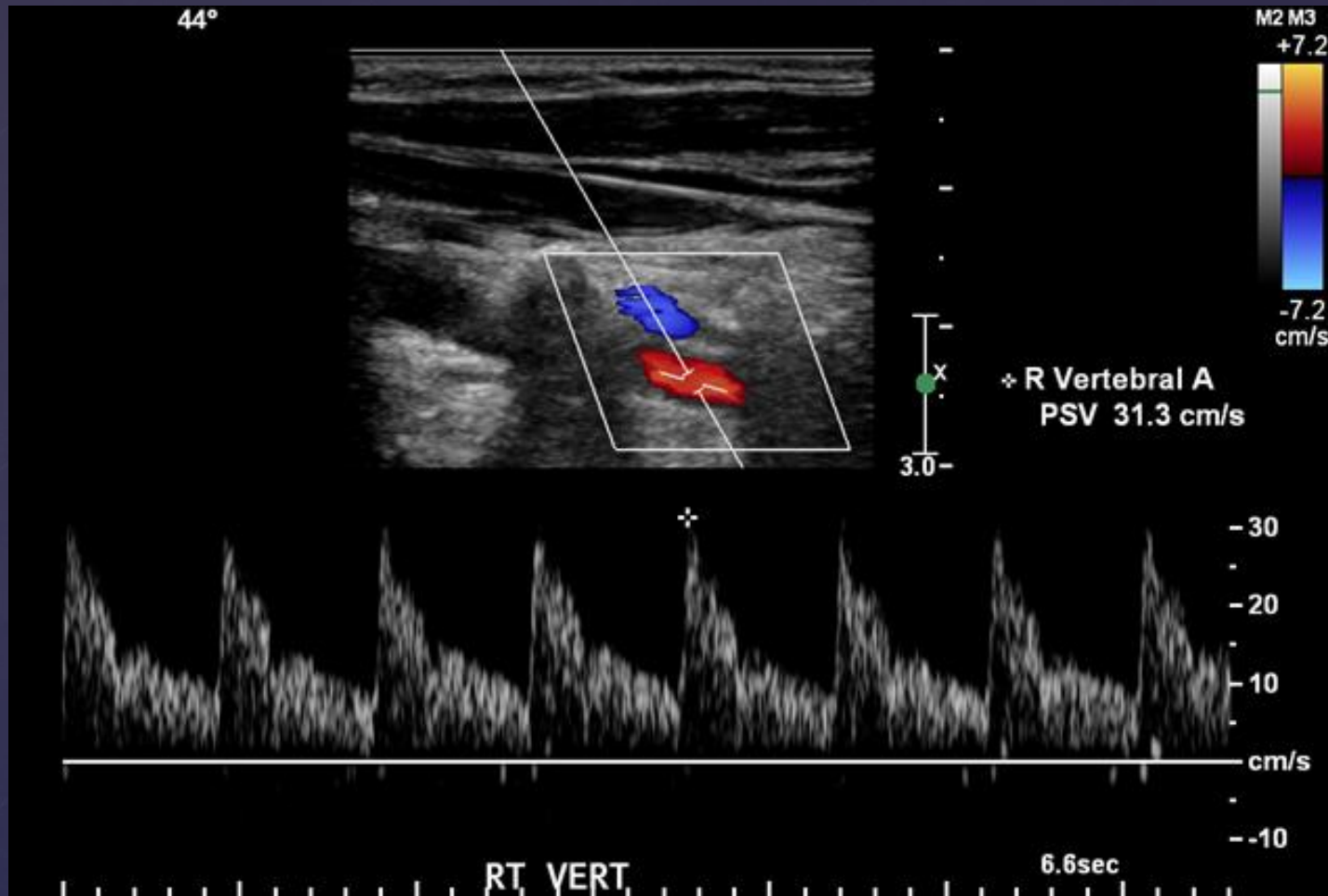


Spectral Doppler recording at the level of the distal internal carotid artery.



Spectral Doppler recording at the level of the proximal external carotid artery.

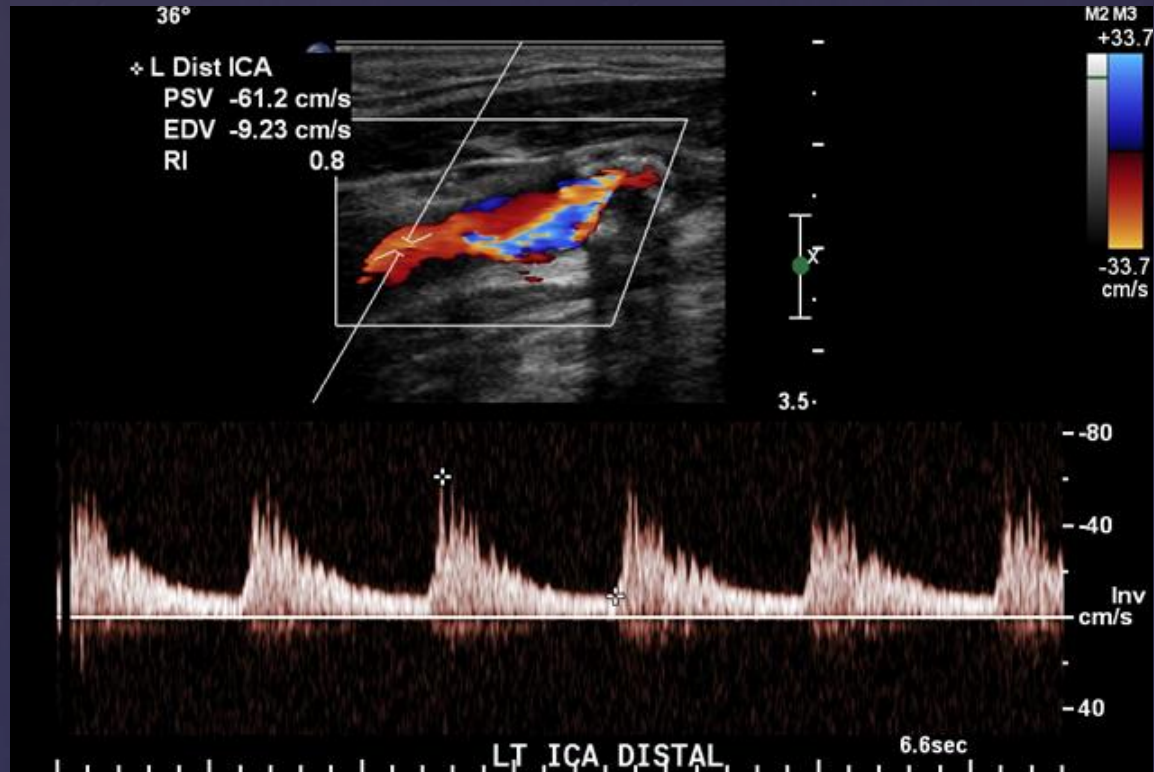




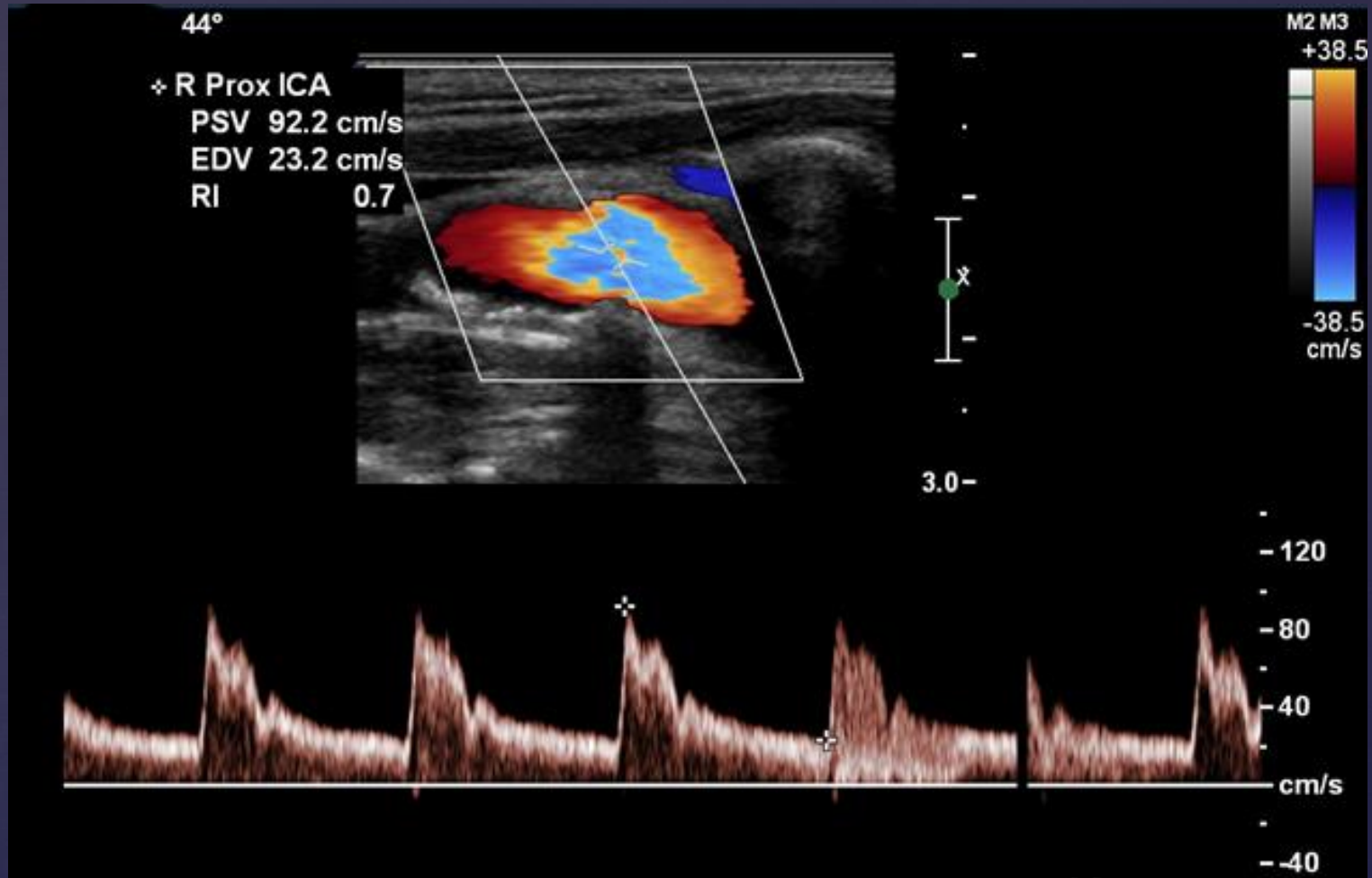
Spectral Doppler recording of the vertebral artery.



When significant stenosis is suspected, take additional images at the site of maximum velocity due to the stenosis...

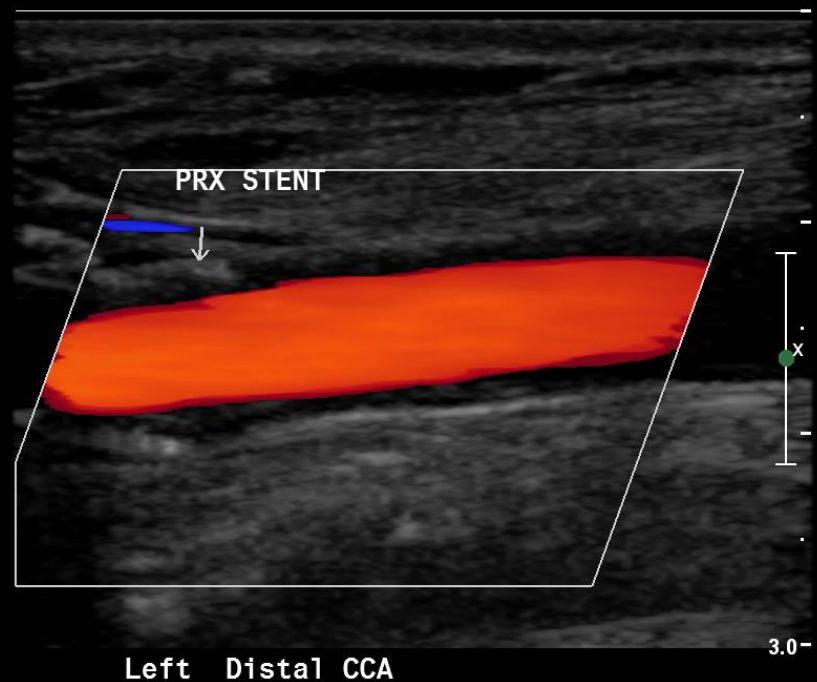


... and distal to the site of maximal velocity to document the presence or absence of disturbed flow.

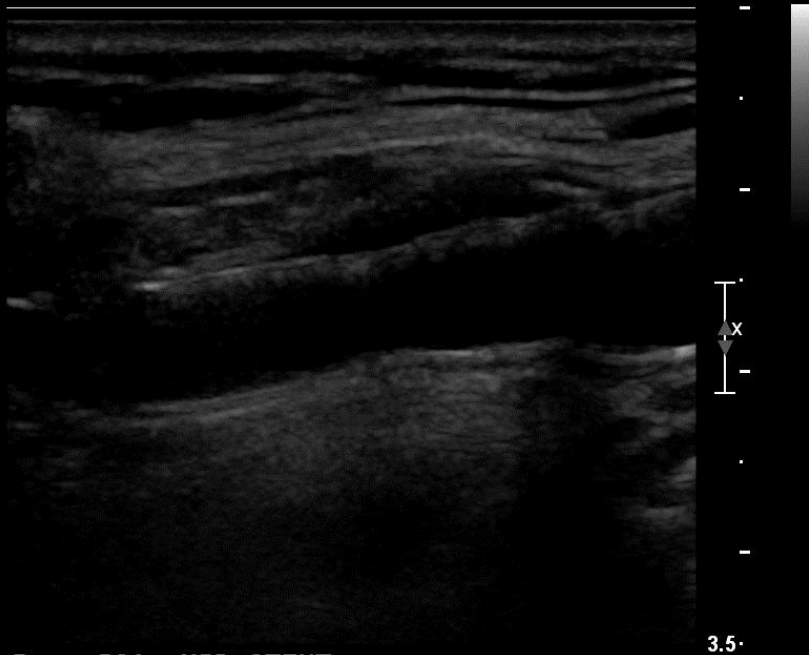


Diastolic velocities may also be calculated.

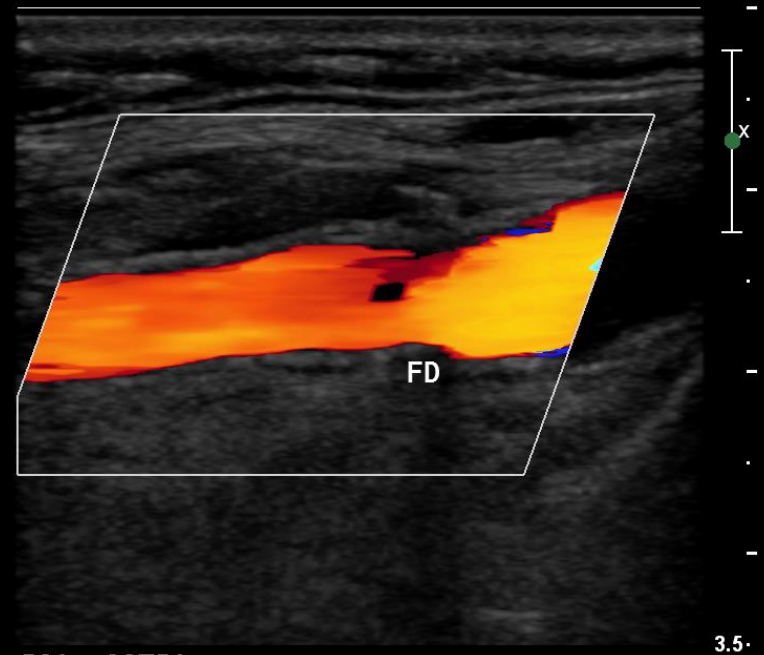




Indwelling stents require additional imaging.



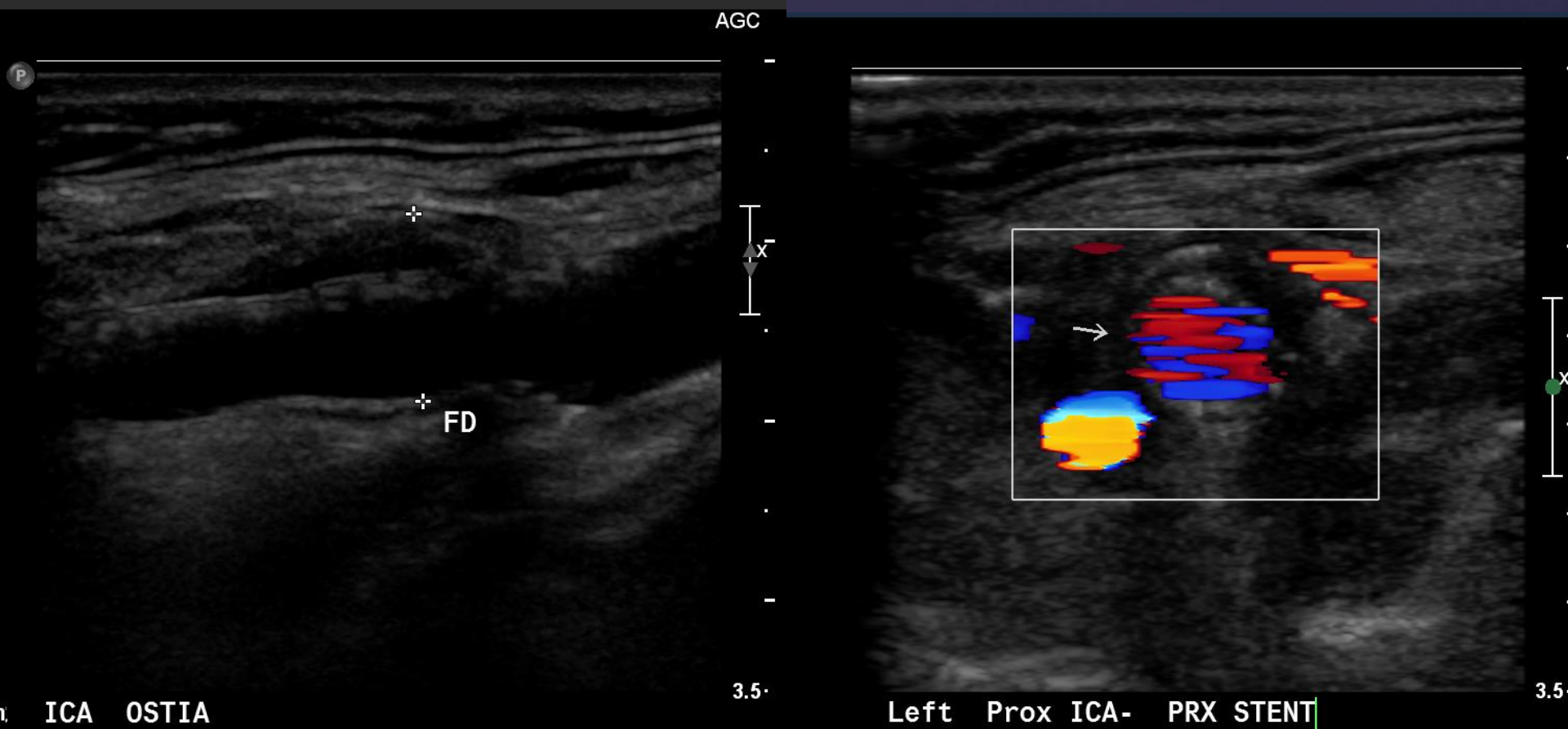
Left Prox ICA MID STENT



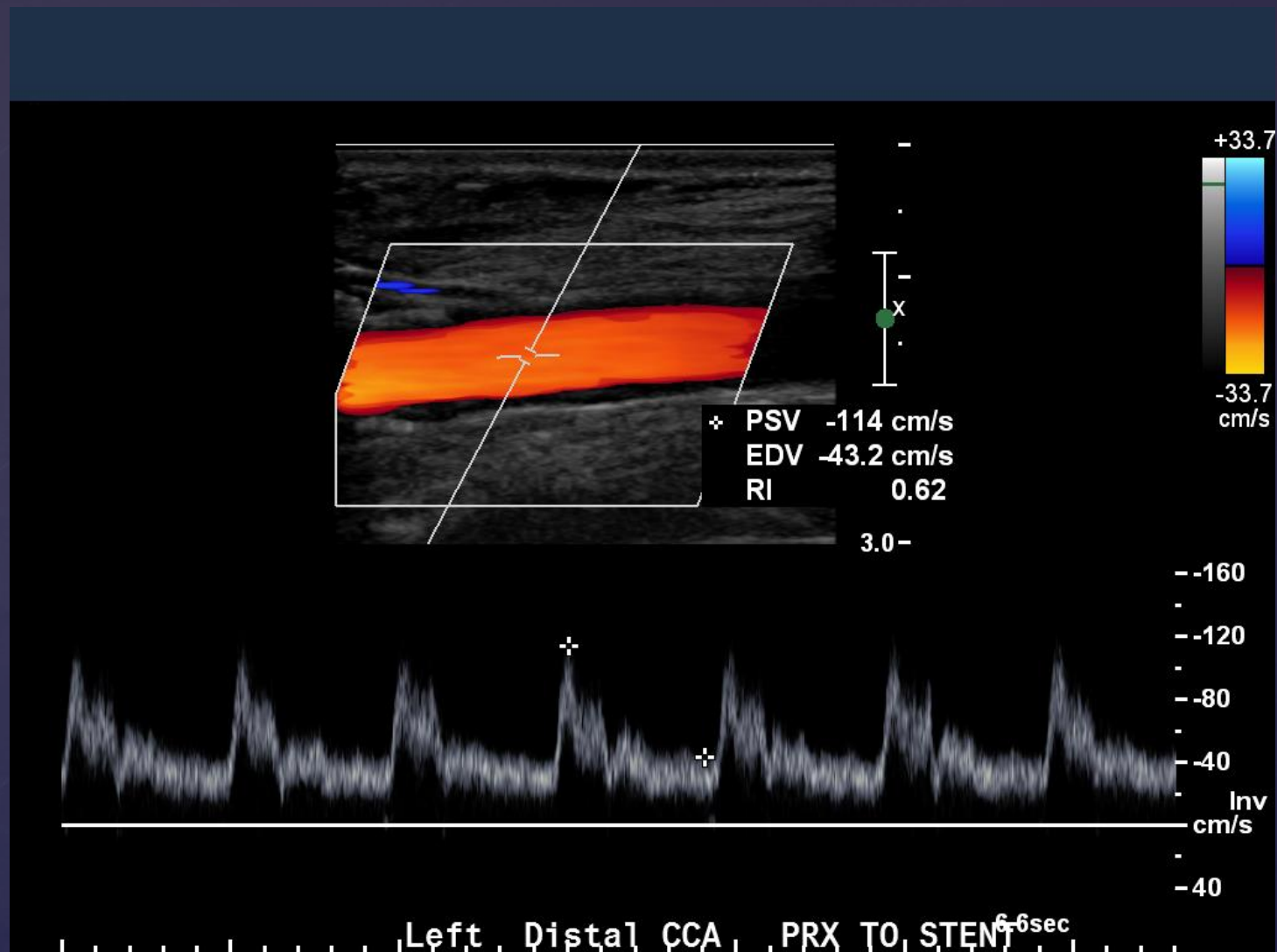
Left ICA OSTIA

Indwelling stents require additional imaging.





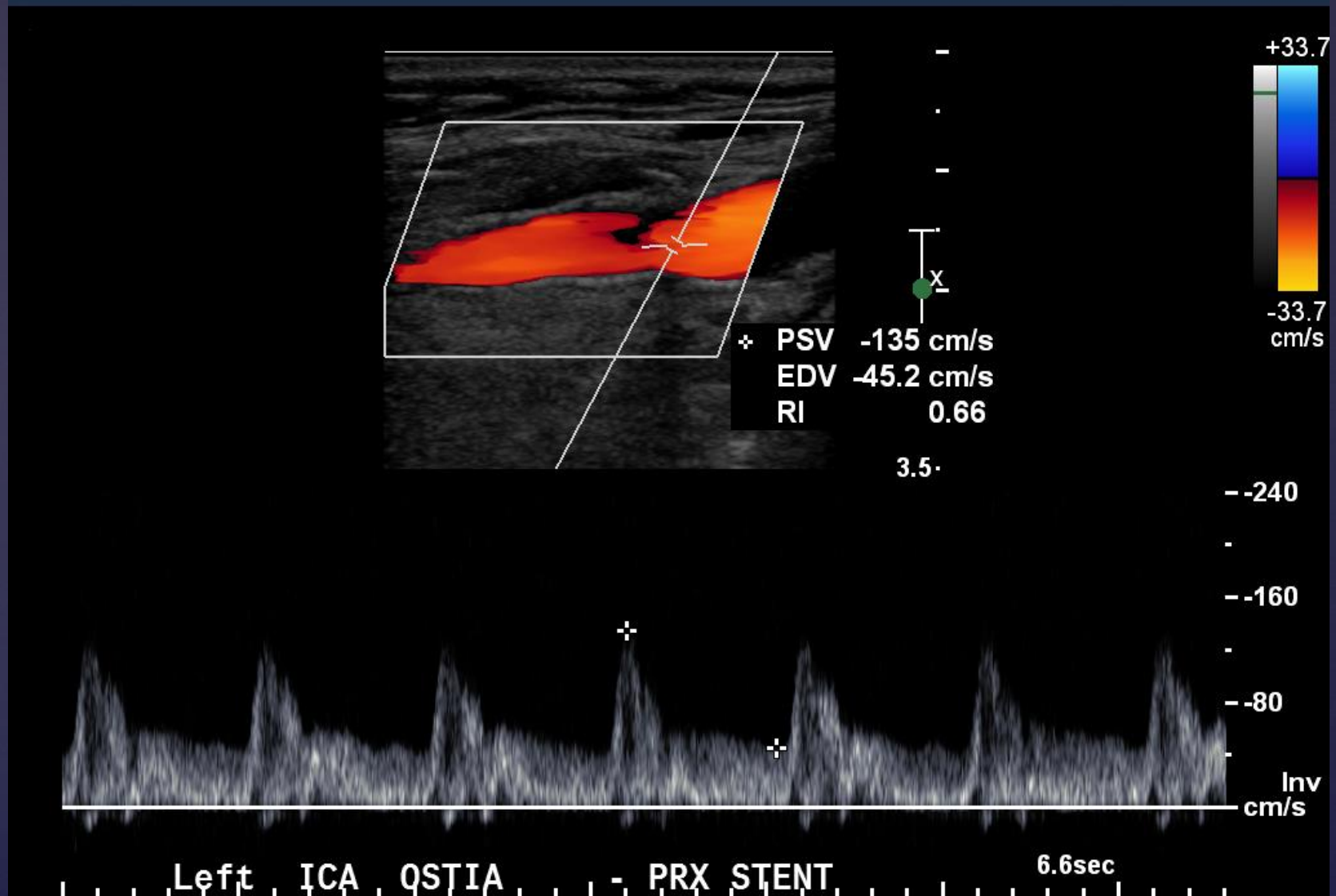
Indwelling stents require additional imaging.



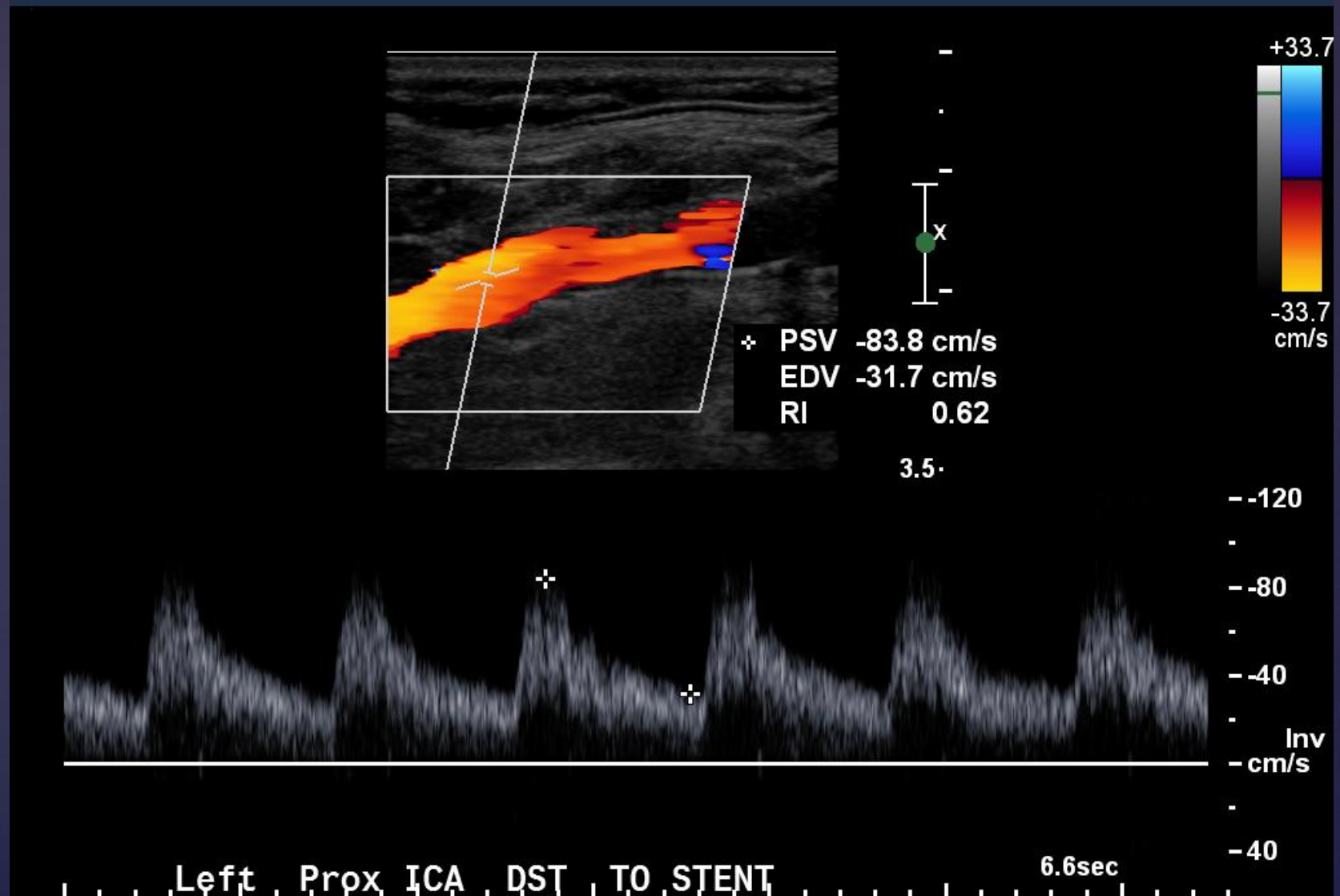
Velocities should be sampled proximal to each stent.



Sample flow velocities within the stent.



Determine the site of highest velocity.



Sample flow velocities distal to each stent.