



Clinical Protocol

Carotid Arteries

1. Common Carotid Artery (CCA):
 - R/L long and trans B-mode images of prox, mid, and dist.
 - R/L long color Doppler with peak systolic and end diastolic velocities at prox, mid, and dist.

2. External Carotid Artery (ECA):
 - R/L long and trans B-mode images at bifurcation.
 - One long color Doppler with peak systolic and end diastolic velocities at proximal.

3. Internal Carotid Artery (ICA):
 - R/L long and trans B-mode images at bifurcation.
 - R/L long color Doppler with peak systolic and end diastolic velocities at prox, mid, and dist.

4. Vertebral Artery (VERT):
 - Long B-mode image.
 - One long color Doppler with peak systolic and end diastolic velocities at neck/origin.
 - If retrograde vertebral flow (either systolic or diastolic), image same side subclavian artery and evaluate for subclavian steal syndrome.

5. Calculate ratio of ICA/CCA. (ICA/CCA = Highest PSV ICA/PSV of Mid CCA)

- NOTES
- 1) Stents require additional images. Indwelling stents sampled within, prox, and dist to each stent, and site of highest velocity determined and recorded.
 - 2) If patient has high carotid bifurcation or arrhythmia, note on Worksheet.

Interpretation Criteria

% ICA diameter reduction	Normal	< 50% Stenosis	50 - 69% Stenosis	70 - 90% Stenosis	Occluded
Peak systolic velocity (cm/s)	< 125	< 180	≥ 180	≥ 230	
End diastolic velocity (cm/s)				≥ 100	
Other criteria	No visible plaque				No visible flow in ICA



INDICATIONS		DATE/TIME	
		SONOGRAPHER	
<input type="checkbox"/> Yes <input type="checkbox"/> No	Chaperone used? If YES, name of chaperone: _____ Date/Time _____		
<input type="checkbox"/> Yes <input type="checkbox"/> No	Patient provided verbal consent to Sonographer for student to scan? If YES, name of student sonographer: _____		

RIGHT

LEFT

Plaque?	Velocities (PSV/EDV)	Vessel	Plaque?	Velocities (PSV/EDCV)
<input type="checkbox"/> Yes <input type="checkbox"/> No	_____ / _____	CCA	<input type="checkbox"/> Yes <input type="checkbox"/> No	_____ / _____
<input type="checkbox"/> Yes <input type="checkbox"/> No	Prox _____ / _____ Mid _____ / _____ Dist _____ / _____	ICA/Bulb	<input type="checkbox"/> Yes <input type="checkbox"/> No	Prox _____ / _____ Mid _____ / _____ Dist _____ / _____
<input type="checkbox"/> Yes <input type="checkbox"/> No	_____ / _____	ECA	<input type="checkbox"/> Yes <input type="checkbox"/> No	_____ / _____
Patent? <input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Antegrade <input type="checkbox"/> Retrograde <input type="checkbox"/> Bidirectional	Vertebral	Patent? <input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Antegrade <input type="checkbox"/> Retrograde <input type="checkbox"/> Bidirectional
		ICA/CCA Ratio		

Interpretation criteria

Additional comments

% ICA diameter reduction	Normal	< 50% Stenosis	50 - 69% Stenosis	70 - 99% Stenosis	Occluded
Peak Systolic Velocity (cm/s)	< 125	< 180	≥ 180	≥ 230	
End Diastolic Velocity (cm/s)				≥ 100	
Other criteria	No visible plaque				No visible flow in ICA

SONOGRAPHER CONFIRMATION: My signature confirms that instructions have been provided to the conscious patient regarding this exam, that US utilizes sound waves rather than ionizing radiation, and that coupling gel is used to improve the quality of the exam.	<hr style="border: 0; border-top: 1px solid black; margin-bottom: 5px;"/> Sonographer's Signature
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|-----|-----|-------|-----|-----|
| FMC | KMC | CMC | TMC | NRH |
| KIC | MIC | PI | TI | |
| MFP | SFP | Other | | |

Name / MR # / Label