

History: Transient episode of Left hand paraesthesia and expressive dysphasia, lasting ~10 minutes on 23/05/2022. New AF. Left ICA 50-69% stenosis on US 24/05/2022. Left carotid endarterectomy planned for 08/06/2022.

Report:

LEFT: CCA and bulb - mild plaque; ICA - moderate-to-severe (~1.1 cm long) plaque with PSV of 197 cm/s and St Marys ratio of 12.3 compatible with 60-69% stenosis; distal ICA - clear, seen for >3.9 cm below gonial angle.

Forward flow seen in the LEFT vertebral artery with normal flow.

Cardiac arrhythmia noted.

Level of carotid bifurcation marked on patient's neck.

Adequate temporal window for peri-operative TCD monitoring of Left MCA.

See diagram on PACS.

(This report follows the UK guidelines with use of NASCET grading where the ICA stenosis is graded relative to the size of the distal artery).

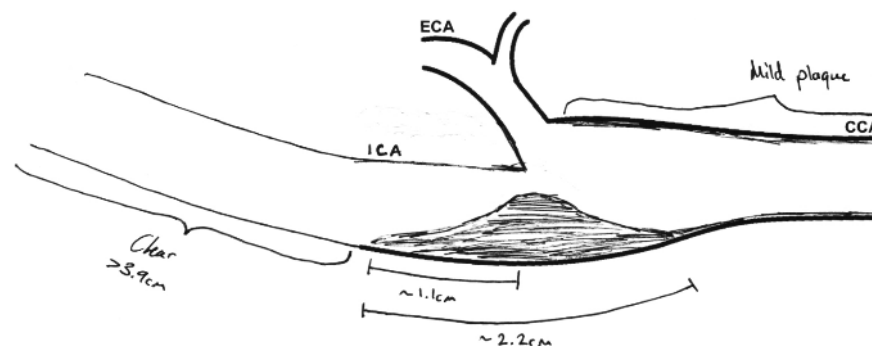
VASCULAR INVESTIGATIONS UNIT

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DUPLEX ULTRASOUND
CAROTID ENDARTECTOMY PRE-
OPERATIVE SCAN

RIGHT / LEFT

DATE 08/06/22 SCAN NO. 1C/122



Transcranial Doppler window

	Temporal	Orbital
Adequate?	<u>Y/N</u>	<u>Y/N</u>
TAMV (cm/s)	<u>55 - 60</u>	
Depth (mm)	<u>45 - 60</u>	

ICA disease

Stenosis	<u>60-69%</u>
Plaque length (ICA only)	<u>1.1cm</u>
Plaque length (ICA + bulb)	<u>2.2cm</u>
Distal ICA plaque	<u>clear</u>
Distal ICA seen for	<u>>3.9</u> cm below gonial angle

Comments

SIGNED

[Signature]

History: Bilateral ICA stenoses (US 05/05/2022) with Left eye amaurosis fugax; for Left CEA (scheduled op date 12/05/2022).

Report:

PREOPERATIVE LEFT CAROTID ENDARTERECTOMY SCAN

LEFT: CCA - mild plaque; ICA - severe (~1.6 cm long) plaque with PSV of 577 cm/s and ICA PSV/CCA PSV ratio of 14.1 compatible with 70-99% stenosis; distal ICA - fairly clear, seen for ~3.4 cm below gonial angle.

Level of carotid bifurcation marked on patient's neck. Temporal window for TCD monitoring of Left MCA difficult to find; allow extra time for set-up.

See diagram on PACS.

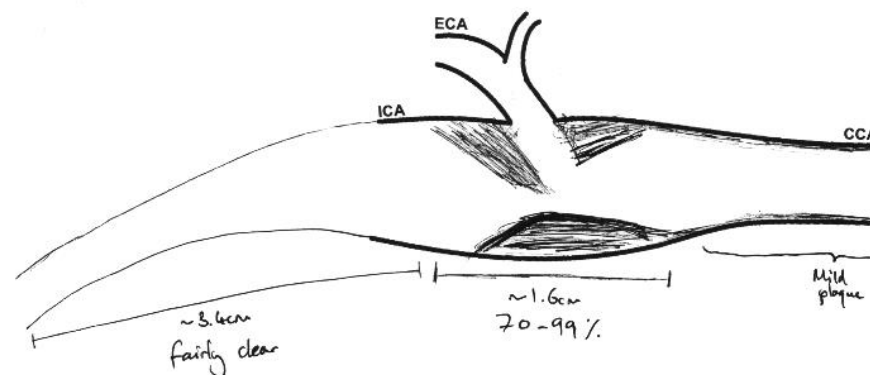
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DUPLEX ULTRASOUND
CAROTID ENDARTERECTOMY PRE-
OPERATIVE SCAN

~~RIGHT~~ / LEFT

DATE 16/05/22 SCAN NO. 1/1



Transcranial Doppler window			ICA disease	
	Temporal	Orbital	Stenosis	70-99%
Adequate?	Y/N*	Y/N	Plaque length (ICA only)	NA
TAMV (cm/s)			Plaque length (ICA + bulb)	~1.6cm
Depth (mm)	45-60		Distal ICA plaque	fairly clear
			Distal ICA seen for	~3.4 cm below gonial angle

Comments
• Difficult ^{TCD} window to find, allow extra set up time for peri-operative monitoring.

SIGNED

[Signature]

History: Right ICA >90% stenosis (US 09/05/2022); Left-sided weakness.
Previous Left carotid endarterectomy.

Report:

PREOPERATIVE RIGHT CAROTID ENDARTERECTOMY CHECK SCAN

RIGHT: CCA - mild to moderate (20-40%) plaque; bulb - moderate (30-50% relative to size of bulb) plaque; ICA - severe (~2.1 cm long) plaque with PSV of 668 cm/s and ICA PSV/CCA PSV ratio of 11.9 compatible with 70-99% stenosis; distal ICA - clear, seen for >3.3 cm below gonial angle.

Level of carotid bifurcation marked on patient's neck. Right temporal window explored for TCD monitoring.

See diagram on PACS.

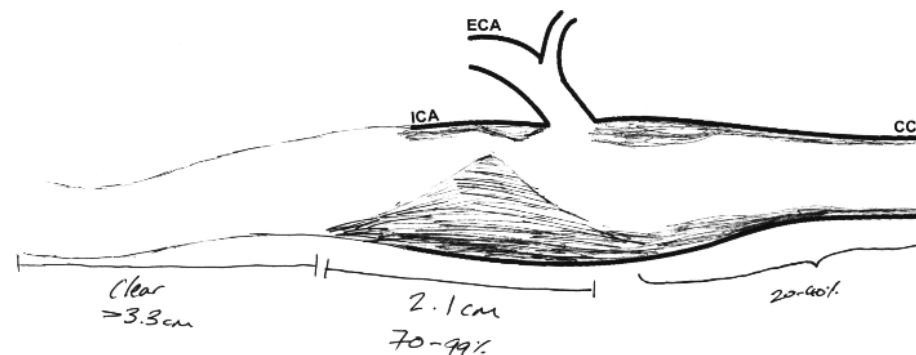
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DUPLEX ULTRASOUND
CAROTID ENDARTERECTOMY PRE-
OPERATIVE SCAN

RIGHT / ~~LEFT~~

DATE 12/05/22 SCAN No. 1 C 1 22



Transcranial Doppler window

	Temporal	Orbital
Adequate?	<u>Y/N</u>	<u>Y/N</u>
TAMV (cm/s)	<u>60-70</u>	
Depth (mm)	<u>65-65</u>	

ICA disease

Stenosis	<u>70-99%</u>
Plaque length (ICA only)	<u>~2.1 cm</u>
Plaque length (ICA + bulb)	<u>N/A</u>
Distal ICA plaque	<u>clear</u>
Distal ICA seen for	<u>>3.3</u> cm below gonial angle

Comments

SIGNED

[Signature]

History: Right ICA stenosis, scheduled for Right carotid endarterectomy 22/06/2022.

Report:

RIGHT: CCA - mildly tortuous in distal segment with mild plaque; bulb - moderate-to-severe (40-60% relative to size of bulb) plaque; ICA - moderate-to-severe (~1.1-to-2.1 cm) plaque with PSV of 133 cm/s and St Marys ratio of 9.5 compatible with 50-59% stenosis; distal ICA - mild plaque, seen for ~2.5 cm below gonial angle.

Forward flow seen in the RIGHT vertebral artery with normal flow.

Level of carotid bifurcation marked on patient's neck.

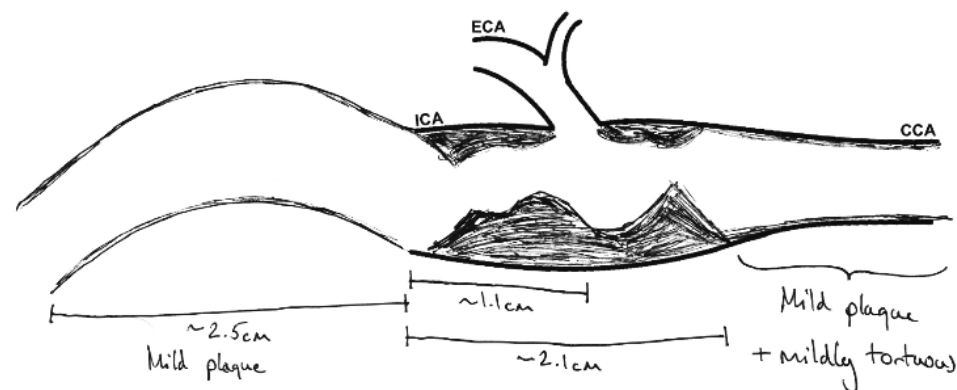
Right temporal window for TCD monitoring of Right MCA explored. See diagram on PACS.

VASCULAR INVESTIGATIONS UNIT

DUPLEX ULTRASOUND
CAROTID ENDARTERECTOMY PRE-
OPERATIVE SCAN

RIGHT / LEFT

DATE 22/06/22 SCAN No. 1054 / 110/22



Transcranial Doppler window

	Temporal	Orbital
Adequate?	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
TAMV (cm/s)	55 @ 55mm	
Depth (mm)	40-65mm	

ICA disease

Stenosis	50-59%
Plaque length (ICA only)	~1.1cm
Plaque length (ICA + bulb)	~2.1cm
Distal ICA plaque	Mild
Distal ICA seen for	~2.5 cm below gonial angle

Comments

SIGNED

Sharon Collins

History. Expressive dysphasia.

Report.

Both carotid artery systems were fairly clear with normal flow.

Forward flow seen in both vertebral arteries with normal flow.

History: 30-minute episode of Right arm paralysis on 23/05/2022, following 3-week history of gradually reduced Right upper limb strength and fine motor skills. On examination 24/05/2022, Right upper limb strength MRC 5/5 but R<L upper limb strength.

Report:

RIGHT: CCA - mild plaque; bulb - mild-to-moderate (20-40% relative to size of bulb) plaque; ICA - moderate (<50%) plaque.

LEFT: CCA - mild plaque; bulb - mild-to-moderate (20-40% relative to size of bulb) plaque; ICA - moderate (<50%) plaque.

Normal ICA PSV's bilaterally.

Forward flow seen in both vertebral arteries with normal flow.

Cardiac arrhythmia noted.

(This report follows the UK 2008 Guidelines with use of NASCET grading where the ICA stenosis is graded relative to the size of the distal artery).

History: Expressive/receptive dysphasia on 28/05/2022.

Report:

RIGHT: CCA, bulb and ICA - fairly clear.

LEFT: CCA and bulb - mild plaque; ICA - clear.

Normal ICA PSV's bilaterally.

Forward flow seen in both vertebral arteries with normal flow.

Cardiac arrhythmia noted.

(This report follows the UK 2008 Guidelines with use of NASCET grading where the ICA stenosis is graded relative to the size of the distal artery).

History: Ataxia, expressive dysphasia, and reduced power Right-side. Nil acute on CT Head (28/05/2022).

Report:

RIGHT: CCA - mild plaque; bulb - mild-to-moderate (20-40% relative to size of bulb) plaque; ICA - mild plaque.

LEFT: CCA - mild plaque; bulb - mild-to-moderate (20-40% relative to size of bulb) plaque; ICA - mild plaque.

Normal ICA PSV's bilaterally.

Forward flow seen in both vertebral arteries with normal flow.

(This report follows the UK 2008 Guidelines with use of NASCET grading where the ICA stenosis is graded relative to the size of the distal artery).

History: Asymmetric retinopathy. Known T1DM.

Report:

Both carotid artery systems were clear with normal flow.

Forward flow seen in both vertebral arteries with normal flow.

History: 69 year old gentleman admitted with dizziness, blurry vision, poorly controlled blood pressure systolic 189, with postural drop, reports pain and light headed feels pain stemming from the neck and feels it affecting the back of the head and neck. ? stenosis of carotid arteries. PMH; pt known CAD with CABG 7 months ago, T2DM, OA, tinnitus, hypercholestroemia, cervical spondylosis, shoulder surgery, knee arthroscopy, cataracts, piles

Report:

RIGHT: CCA, bulb and ICA - mild-to-moderate (20-40%) plaques.

LEFT: CCA, bulb and ICA - mild-to-moderate (20-40%) plaques.

Normal ICA PSV's bilaterally.

No flow seen in region of RIGHT vertebral artery, ?absent or occluded.

Forward flow seen in the LEFT vertebral artery with normal flow.

(This report follows the UK 2008 Guidelines with use of NASCET grading where the ICA stenosis is graded relative to the size of the distal artery).

History: Episode of Left arm weakness and paraesthesia. HTN. High cholesterol.

Report:

RIGHT: CCA, bulb, & ICA - mild plaque with normal PSV.

LEFT: CCA & bulb - mild plaque; ICA - moderate plaque in proximal vessel with PSV of 138 cm/s, ICA PSV/CCA PSV ratio of 1.2, and St Marys ratio of 5.1 compatible with <50% stenosis, with further mid-vessel stenosis (PSV 183 cm/s) which is difficult to grade due to no appropriate reference velocity; recommend alternative imaging modality, if clinically appropriate.

Forward flow seen in both vertebral arteries with normal flow.

(This report follows the UK guidelines with use of NASCET grading where the ICA stenosis is graded relative to the size of the distal artery.)

History: Episode of Right hand weakness. HTN. T2DM.

Report:

RIGHT: CCA - fairly clear; bulb and ICA - mild plaque.

LEFT: CCA - mild plaque; bulb and ICA - fairly clear.

Normal ICA PSV's bilaterally.

Forward flow seen in both vertebral arteries with normal flow.

(This report follows the UK 2008 Guidelines with use of NASCET grading where the ICA stenosis is graded relative to the size of the distal artery).

History: Sudden loss of vision in Left eye.

Report:

RIGHT: CCA, bulb and ICA - mild plaque.

LEFT: CCA, bulb and ICA - mild plaque.

Normal ICA PSV's bilaterally.

Forward flow seen in both vertebral arteries with normal flow.

(This report follows the UK 2008 Guidelines with use of NASCET grading where the ICA stenosis is graded relative to the size of the distal artery).

History: Left arm weakness.

Report:

Difficult scan due to short neck length and high carotid bifurcation.

RIGHT: CCA - mild plaque; bulb - mild-to-moderate (20-40% relative to size of bulb) plaque; ICA - severe (~2.7 cm long) plaque with PSV of >540 cm/s and St Marys ratio of >30 compatible with >90% stenosis; distal ICA - fairly clear, seen for ~2.5 cm above the gonial angle.

LEFT: CCA & bulb - mild plaque; ICA - moderate plaque with PSV of 165 cm/s, ICA PSV/CCA PSV of 1.9, and St Marys ratio of 5.5 compatible with <50% stenosis.

Forward flow seen in both vertebral arteries with normal flow.

(This report follows the UK guidelines with use of NASCET grading where the ICA stenosis is graded relative to the size of the distal artery).

The Right MCA showed 0 microembolic signals in 10 minutes.

History: Known Right ICA 70-99% stenosis and Left CCA/ICA occlusion; refused Right CEA. New episode of transient Left-sided weakness two days ago.

Report:

RIGHT: CCA - mild-to-moderate (20-40%) plaque; bulb & ICA - severe (~1.4 cm long) calcified plaque, difficult to measure but PSV in excess of >431 cm/s and ICA PSV/CCA PSV ratio of >11.6 compatible with 70-99% stenosis; distal ICA - fairly clear, seen for >4 cm below gonial angle.

LEFT: CCA, bulb and ICA - occluded, as seen previously.

Forward flow seen in both vertebral arteries with mild-to-moderately damped flow.

(This report follows the UK guidelines with use of NASCET grading where the ICA stenosis is graded relative to the size of the distal artery).

The Right MCA showed 0 microembolic signals in 10 minutes.

History: Sudden onset dysphasia and confusion.

Report:

RIGHT: CCA - clear; bulb and ICA - mild plaque.

LEFT: CCA - clear; bulb - mild plaque; ICA - moderate (<50%) plaque.

Normal ICA PSV's bilaterally.

Forward flow seen in both vertebral arteries with normal flow.

(This report follows the UK 2008 Guidelines with use of NASCET grading where the ICA stenosis is graded relative to the size of the distal artery).

History: Right-sided weakness and dysphasia. Nil acute on CT Head (20/06/2022).

Report:

RIGHT: CCA, bulb and ICA - mild plaque.

LEFT: CCA, bulb and ICA - mild plaque.

Normal ICA PSV's bilaterally.

Forward flow seen in both vertebral arteries with normal flow.

(This report follows the UK 2008 Guidelines with use of NASCET grading where the ICA stenosis is graded relative to the size of the distal artery).

History: Episode of Left-sided hemiparesis on 15/06/2022.

Report:

RIGHT: CCA, bulb and ICA - mild plaque.

LEFT: CCA, bulb and ICA - mild plaque.

Normal ICA PSV's bilaterally.

Forward flow seen in both vertebral arteries with normal flow.

(This report follows the UK 2008 Guidelines with use of NASCET grading where the ICA stenosis is graded relative to the size of the distal artery).

History: Right arm and leg weakness, facial droop, slurred speech. Left lacunar stroke.

Report:

RIGHT: CCA, bulb and ICA - mild plaque.

LEFT: CCA, bulb and ICA - mild plaque.

Normal ICA PSV's bilaterally.

Forward flow seen in the RIGHT vertebral artery with normal flow.

Forward flow seen in the LEFT vertebral artery with high-resistance waveform, suggestive of distal severe stenosis or occlusion.

(This report follows the UK2008 guidelines with the use of NASCET grading where the ICA stenosis is graded relative to the size of the distal artery).

History: Left-sided weakness; Right frontal lobe established infarct on CT Head (17/04/2022).

Report:

RIGHT: CCA - mild plaque; bulb - mild-to-moderate (20-40% relative to size of bulb) plaque; ICA - occluded from origin.

LEFT: CCA - mild plaque; bulb - moderate-to-severe (40-60% relative to size of bulb) plaque; ICA - moderate (<50%) plaque with normal PSV.

Forward flow seen in the RIGHT vertebral artery with mild-to-moderately damped monophasic flow, suggestive of proximal severe stenosis or occlusion.

Forward flow seen in the LEFT vertebral artery with normal flow.

(This report follows the UK2008 guidelines with the use of NASCET grading where the ICA stenosis is graded relative to the size of the distal artery).

History: Presumed Left subclavian steal syndrome.

Report:

Moderate-to-severely damped flow seen throughout carotid and vertebral arteries, bilaterally - suggestive of proximal severe stenosis or occlusion; ?aortic / innominate disease.

RIGHT:

CCA - proximal vessel not seen, otherwise diffuse moderate-to-severe (40-60%) plaque.

Carotid bulb - moderate (30-50% relative to size of bulb) plaque.

ICA - mild-to-moderate (<50%) plaque.

Subclavian A. - not scanned.

Vertebral A. - moderate-to-severely damped antegrade flow.

LEFT:

CCA - proximal vessel not seen clearly, probable severe (>70%) stenosis in proximal vessel, otherwise diffuse moderate-to-severe (40-60%) plaque.

Carotid bulb - moderate (30-50% relative to size of bulb) plaque.

ICA - mild-to-moderate (<50%) plaque.

Subclavian A. - occluded in proximal and distal vessel; mid-vessel patent with low-velocity flow; collateralisation seen feeding in near vertebral artery origin.

Vertebral A. - moderate-to-severely damped antegrade flow.

(This report follows the UK guidelines with use of NASCET grading where the ICA stenosis is graded relative to the size of the distal artery).

History: Right-sided weakness. Left corona radiata small sub-acute or established infarct on CT Head (16/04/2022).

Report:

RIGHT: CCA, bulb and ICA - mild plaque.

LEFT: CCA - mild plaque; bulb - mild-to-moderate (20-40% relative to size of bulb) plaque; ICA - mild plaque.

Incidental finding of Left ?carotid body tumour, measuring ~2.4 x 2.0 x 2.0 cm, though not significantly vascularised; no obvious compression on Left ICA.

Normal ICA PSV's bilaterally.

Forward flow seen in both vertebral arteries with normal flow.

Possible cardiac arrhythmia noted; patient unaware of any previous cardiac conditions.

(This report follows the UK 2008 Guidelines with use of NASCET grading where the ICA stenosis is graded relative to the size of the distal artery).

History: One episode of Right eye visual disturbance on 11/04/2022, lasting ~10 minutes.

Report:

RIGHT: CCA - mild plaque; bulb - moderate (30-50% relative to size of bulb) plaque; ICA - severe (~1.7 cm long) plaque with PSV of 664 cm/s and St Marys ratio of 60.4 compatible with >90% stenosis; distal ICA - mild plaques, seen for ~3.4 cm below gonial angle.

LEFT: CCA - mild to moderate (20-40%) plaque; bulb - moderate (30-50% relative to size of bulb) plaque; ICA - severe (~1.9 cm long) plaque with PSV of 492 cm/s and St Marys ratio of 23.4 compatible with 80-89% stenosis; distal ICA - poor views, seen for ~~~2.7 cm below gonial angle.

Forward flow seen in both vertebral arteries with ?mildly damped flow, possibly suggestive of proximal stenosis or occlusion bilaterally.

(This report follows the UK guidelines with use of NASCET grading where the ICA stenosis is graded relative to the size of the distal artery).

The Right MCA showed 0 microembolic signals in 10 minutes.

History: Hyperdense Left MCA on CT Head (24/03/2022) concordant with Left MCA infarct on subsequent CT Head (28/03/2022).

Report:

RIGHT: CCA - clear; bulb and ICA - mild plaque with normal PSV.

LEFT: CCA - clear; bulb - moderate (30-50% relative to size of bulb) plaque; ICA - sub-occlusive thrombus throughout with high-resistance flow suggestive of distal severe stenosis or occlusion.

Forward flow seen in both vertebral arteries with normal flow.

(This report follows the UK guidelines with use of NASCET grading where the ICA stenosis is graded relative to the size of the distal artery).

History: Left ICA stenosis (SWFT US 13/05/2022) found following Left retinal TIA.

Report:

RIGHT: CCA - mild plaque; bulb - mild-to-moderate (20-40% relative to size of bulb) plaque; ICA - moderate (<50%) plaque with normal PSV.

LEFT: CCA - mild-to-moderate (20-40%) plaque; bulb - moderate (30-50% relative to size of bulb) plaque; ICA - severe (~1.8 cm long) plaque with PSV of 414 cm/s and St Marys ratio of 16.6 compatible with 70-79% stenosis; distal ICA - fairly clear, seen for ~3.3 cm below gonial angle.

Forward flow seen in both vertebral arteries with normal flow.

(This report follows the UK guidelines with use of NASCET grading where the ICA stenosis is graded relative to the size of the distal artery).

Left temporal acoustic window explored using transcranial Doppler with Asif Dilshad; possible mild-to-moderate stenosis at Left MCA origin, or due to morphology. Recommend TCD monitoring of Left MCA at depth of 55 mm.

The Left MCA showed 0 microembolic signals in 15 minutes.