

## Case 1

VASCULAR LABORATORY REPORT		Pre Operative Carotid Duplex	
Medical Engineering and Physics			
King's College Hospital, London SE5 9RS			
Direct Line : 0203 299 3711			
Consultant:		Surname:	
Department:		First name:	
Hospital:	King College Hospital	DOB:	
		Hospital No:	

  

Side	Right/Left
TCD Window	Y/N
PSV (m/s)	1.9
% Stenosis	60-70
Length of plaque (cm)	2.2
From stenosis to bifurcation (cm)	0
From stenosis to jawline (cm)	2.7
Top of plaque to jawline (cm)	2.4
Diameter of distal ICA (cm)	0.6

  

Comments: Results discussed with Consultant

Tested By: Nick  
Date: 28/10/21

US Pre CEA Assessment

VERIFIED - Attended 28-Oct-2021 - ZAKIN/ZAKIN-28-Oct-2021

Left:

Calcified irregular plaque at origin of ICA within carotid bulb. Acoustic shadowing caused by calcification inhibits views. Velocity criteria suggestive of ~60% stenosis, Colour and B-mode imaging suggestive of 70% stenosis/area reduction. Distal ICA patent with normal flow

Conclusion:

~60% stenosis as per NASCET criteria, ~70% stenosis as per ECST criteria.

Please see detailed pre carotid endarterectomy diagram on PACS

Patient sent to clinic

## Case 2

US Doppler carotid artery Both

VERIFIED - Attended-14-Oct-2021 - ZAKIN/ZAKIN-14-Oct-2021

Carotid duplex

RIGHT		Waveform		Plaque Morphology		% Stenosis		
CCA	PSV	<input type="text" value="0.93"/>	m/s	<input type="text" value="NO"/>	Normal	<input type="text" value="-"/>	<input type="text" value="0"/>	
	EDV	<input type="text" value="0.22"/>	m/s					
Bulb					H	<input type="text" value="Heterogeneous"/>	<input type="text" value="10"/>	
ICA	PSV	<input type="text" value="0.39"/>	m/s	<input type="text" value="NO"/>	Normal	H	<input type="text" value="Heterogeneous"/>	<input type="text" value="10"/>
	EDV	<input type="text" value="0.10"/>	m/s					
ECA				<input type="text" value="NO"/>	Normal	H	<input type="text" value="Heterogeneous"/>	<input type="text" value="10"/>
Vert				<input type="text" value="NO"/>	Normal			

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LEFT		Waveform		Plaque Morphology		% Stenosis		
CCA	PSV	<input type="text" value="0.86"/>	m/s	<input type="text" value="NO"/>	Normal	H	<input type="text" value="Heterogeneous"/>	<input type="text" value="20-29"/>
	EDV	<input type="text" value="0.19"/>	m/s					
Bulb					H	<input type="text" value="Heterogeneous"/>	<input type="text" value="10-19"/>	
ICA	PSV	<input type="text" value="0.47"/>	m/s	<input type="text" value="NO"/>	Normal	H	<input type="text" value="Heterogeneous"/>	<input type="text" value="10-19"/>
	EDV	<input type="text" value="0.12"/>	m/s					
ECA				<input type="text" value="NO"/>	Normal	H	<input type="text" value="Heterogeneous"/>	<input type="text" value="10"/>
Vert				<input type="text" value="NO"/>	Normal			

Comments:

Comments:

Sub-optimal images obtained due to patient breathing difficulties during examination  
Normal carotid artery waveforms and velocities. Minor plaque seen bilaterally, however no evidence of emboli in extracranial R ICA.  
Normal antegrade vertebral flow

## Case 3

Carotid duplex

RIGHT

			Waveform		Plaque Morphology		% Stenosis
CCA	PSV	<input type="text" value="0.62"/>	m/s	<input type="text" value="S"/>	See comments	<input type="text" value="-"/>	<input type="text" value="0"/>
	EDV	<input type="text" value="0"/>	m/s				
Bulb						<input type="text" value="-"/>	<input type="text" value="0"/>
ICA	PSV	<input type="text" value="0.22"/>	m/s	<input type="text" value="S"/>	See comments	<input type="text" value="-"/>	<input type="text" value="0"/>
	EDV	<input type="text" value="0.09"/>	m/s				
ECA				<input type="text" value="S"/>	See comments	<input type="text" value="-"/>	<input type="text" value="0"/>
Vert				<input type="text" value="S"/>	See comments		

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LEFT

			Waveform		Plaque Morphology		% Stenosis
CCA	PSV	<input type="text" value="0.68"/>	m/s	<input type="text" value="S"/>	See comments	<input type="text" value="-"/>	<input type="text" value="0"/>
	EDV	<input type="text" value="0"/>	m/s				
Bulb						<input type="text" value="-"/>	<input type="text" value="0"/>
ICA	PSV	<input type="text" value="0.19"/>	m/s	<input type="text" value="S"/>	See comments	<input type="text" value="-"/>	<input type="text" value="0"/>
	EDV	<input type="text" value="0.04"/>	m/s				
ECA				<input type="text" value="S"/>	See comments	<input type="text" value="-"/>	<input type="text" value="0"/>
Vert				<input type="text" value="S"/>	See comments		

Comments:

Comments:

Bilaterally:  
Carotid arteries widely patent with no evidence of stenosis.  
Reversal competent to diastolic phase of CCA and ECA waveform ?cardiac regurgitation  
Normal flow within ICAs and Vertebral arteries.

## Case 4

		Waveform	Plaque Morphology	% Stenosis
CCA	PSV			
	EDV			
Bulb				
ICA	PSV			
	EDV			
ECA				
Vert				

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Reported By ZAKIKHANI Nick  
 Typed By ZAKIKHANI Nick  
 Accession Number:

		Waveform	Plaque Morphology	% Stenosis
LEFT CCA	PSV			
	EDV			
Bulb				
ICA	PSV			
	EDV			
ECA				
Vert				

Comments:

### Comments:

Very limited assessment due to patient thrashing, unable to save images, measure velocities or assess vertebral arteries.

Where seen, carotid arteries appear patent on colour imaging, with sustained colour flow within ICAs during diastole which would suggest normal flow. Where seen, no evidence of significant stenosis.

## Case 5

US Doppler carotid artery Both VERIFIED - Attended-14-Oct-2021 - ZAKIN/ZAKIN-14-Oct-2021 - Carotid duplex

		Waveform	Plaque Morphology	% Stenosis
RIGHT CCA	PSV	0.69 m/s NO	H	Heterogeneous 30
	EDV	0.12 m/s		
Bulb			H	Heterogeneous 30
ICA	PSV	1.04 m/s NO	H	Heterogeneous 10
	EDV	0.28 m/s		
ECA		I	H	Heterogeneous >50
Vert		DF		Damped flow

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		Waveform	Plaque Morphology	% Stenosis
LEFT CCA	PSV	0.82 m/s NO	H	Heterogeneous 20
	EDV	0.18 m/s		
Bulb			H	Heterogeneous 30
ICA	PSV	0.66 m/s NO	H	Heterogeneous 30
	EDV	0.14 m/s		
ECA		I	H	Heterogeneous >50
Vert		NO		Normal

Comments:

### Comments:

#### RIGHT:

CEA site is patent with evidence of minor neo-intimal hyperplasia, ~30% stenosis.

Raised velocities detected in the proximal ECA suggestive of >50% stenosis.

Vertebral artery is patent with damped antegrade flow, suggestive of more proximal disease.

#### LEFT:

CCA and ICA are patent with normal Doppler waveforms and velocities.

ECA origin stenosis, >50% stenosis.

Case 6

US Doppler carotid artery Both

Carotid duplex

VERIFIED

Attended-13-Sep-2021

ZAKIN/ZAKIN-13-Sep-2021

		Waveform		Plaque Morphology		% Stenosis	
RIGHT							
CCA	PSV		m/s		H	Heterogeneous	40
	EDV		m/s				
Bulb					H	Heterogeneous	30
ICA	PSV		m/s		H	Heterogeneous	20
	EDV		m/s				
ECA					H	Heterogeneous	20
Vert							

		Waveform		Plaque Morphology		% Stenosis	
LEFT							
CCA	PSV		m/s		H	Heterogeneous	60
	EDV		m/s				
Bulb					H	Heterogeneous	40
ICA	PSV		m/s		H	Heterogeneous	100
	EDV		m/s				
ECA					H	Heterogeneous	20
Vert							

Comments:

Comments:

No change from previous report dated 14/10/2020, please see report for details.  
Left ICA remains occluded ~1.3cm from its origin.

## Case 7

US Doppler carotid artery Both
VERIFIED - Attended-05-Oct-2021 - ZAKIN/ZAKIN-05-Oct-2021

Carotid duplex

		Waveform		Plaque Morphology		% Stenosis
RIGHT	CCA	PSV 0.97 m/s	NO	Normal	-	0
	EDV 0.23 m/s					
Bulb	ICA	PSV 0.64 m/s	NO	Normal	H	Heterogeneous 10
	EDV 0.17 m/s					
ECA			NO	Normal	-	0
	Vert		NO	Normal		

  

		Waveform		Plaque Morphology		% Stenosis
LEFT	CCA	PSV 0.77 m/s	NO	Normal	-	0
	EDV 0.19 m/s					
Bulb	ICA	PSV 0.58 m/s	NO	Normal	H	Heterogeneous 10
	EDV 0.11 m/s					
ECA			NO	Normal	-	0
	Vert		NO	Normal		

Comments:

Comments:

Normal carotid artery waveforms and velocities.  
Normal antegrade vertebral flow

## Case 8

US Doppler carotid artery Both
VERIFIED - Attended-06-Oct-2021 - ALEXL+ZAKIN/ALEXL-06-Oct-2021

Carotid duplex

		Waveform		Plaque Morphology		% Stenosis
RIGHT	CCA	PSV 0.85 m/s	S	See comments	H	Heterogeneous 10
	EDV 0.16 m/s					
Bulb	ICA	PSV 0.72 m/s	S	See comments	H	Heterogeneous 10-19
	EDV 0.21 m/s					
ECA			S	See comments	H	Heterogeneous 20-29
	Vert		S	See comments		

  

		Waveform		Plaque Morphology		% Stenosis
LEFT	CCA	PSV 1.22 m/s	S	See comments	H	Heterogeneous 10
	EDV 0.18 m/s					
Bulb	ICA	PSV 0.93 m/s	S	See comments	S	See comments 10-19
	EDV 0.30 m/s					
ECA			S	See comments	-	0
	Vert		S	See comments		

Comments:

Comments:

Difficult to obtain accurate velocities due to very irregular heart rate, 7AF (this is not our area of expertise)

**Right:**  
Carotid arteries are patent, with minor plaque seen throughout. Vertebral arteries are patent with antegrade flow.

**Left:**  
Site of CEA is widely patent, very minor plaque seen.  
Increase velocities in the ICA; however, this is due to arrhythmia rather than stenosis.  
Vertebral arteries are patent with antegrade flow.

**Conclusion:**  
Patient has had CEA on the left side.  
Email to be sent to doctor to confirm this.

Case 9

RIGHT									
		Waveform		Plaque Morphology		% Stenosis			
CCA	PSV	0.95	m/s	NO	Normal	-			
	EDV	0.24	m/s			-			
Bulb						-			
ICA	PSV	0.90	m/s	NO	Normal	-			
	EDV	0.37	m/s			-			
ECA				NO	Normal	-			
Vert				NO	Normal	-			

LEFT									
		Waveform		Plaque Morphology		% Stenosis			
CCA	PSV	1.03	m/s	NO	Normal	-			
	EDV	0.23	m/s			-			
Bulb						H	Heterogeneous	10	
ICA	PSV	0.62	m/s	NO	Normal	-			
	EDV	0.18	m/s			-			
ECA				NO	Normal	-			
Vert				NO	Normal	-			

Comments:

Comments:

Right:  
Normal carotid artery waveforms and velocities.  
Normal antegrade vertebral flow.  
IMT - 0.7mm

Left:  
Normal carotid artery waveforms and velocities. 10% plaque at carotid bifurcation.  
Normal antegrade vertebral flow.  
IMT - 0.5mm

Case 10

US Doppler carotid artery Both

Carotid duplex

VERIFIED

Attended-27-Sep-2021

ZAKINZAKIN-27-Sep-2021

RIGHT		Waveform	Plaque Morphology	% Stenosis
CCA	PSV 1.00 m/s	NO	Normal	- 0
	EDV 0.40 m/s			
Bulb				- 0
ICA	PSV 0.70 m/s	NO	Normal	- 0
	EDV 0.30 m/s			
ECA		NO	Normal	- 0
Vert		NO	Normal	

  

LEFT		Waveform	Plaque Morphology	% Stenosis
CCA	PSV 0.88 m/s	NO	Normal	- 0
	EDV 0.25 m/s			
Bulb				- 0
ICA	PSV 0.55 m/s	NO	Normal	- 0
	EDV 0.22 m/s			
ECA		NO	Normal	- 0
Vert		NO	Normal	

Comments:

Comments:

Carotid arteries patent with normal flow.

Normal antegrade vertebral flow.

R IMT - 0.7mm

L IMT - 0.8mm

## Case 11

US Pre CEA Assessment

VERIFIED

Attended-27-Sep-2021

ZAKINZAKIN-27-Sep-2021

RIGHT;

Heterogenous plaque at the origin of the ICA. B-mode imaging indicative of 50% stenosis, velocity criteria suggestive of 50-59% stenosis.

Vascular reg informed of results who will see patient in vascular lab today

Case 12

RIGHT		Waveform		Plaque Morphology		% Stenosis	
CCA	PSV	<input type="text"/>	m/s	NO <input type="text"/>	Normal	- <input type="text"/>	0 <input type="text"/>
	EDV	<input type="text"/>	m/s				
Bulb						- <input type="text"/>	0 <input type="text"/>
ICA	PSV	<input type="text"/>	m/s	NO <input type="text"/>	Normal	- <input type="text"/>	0 <input type="text"/>
	EDV	<input type="text"/>	m/s				
ECA				NO <input type="text"/>	Normal	- <input type="text"/>	0 <input type="text"/>
Vert				NO <input type="text"/>	Normal		
<hr/>							
LEFT		Waveform		Plaque Morphology		% Stenosis	
CCA	PSV	<input type="text"/>	m/s	NO <input type="text"/>	Normal	- <input type="text"/>	0 <input type="text"/>
	EDV	<input type="text"/>	m/s				
Bulb						- <input type="text"/>	0 <input type="text"/>
ICA	PSV	<input type="text"/>	m/s	NO <input type="text"/>	Normal	- <input type="text"/>	0 <input type="text"/>
	EDV	<input type="text"/>	m/s				
ECA				NO <input type="text"/>	Normal	- <input type="text"/>	0 <input type="text"/>
Vert				NO <input type="text"/>	Normal		

Comments:

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Comments:

Normal carotid artery waveforms and velocities.  
Normal antegrade vertebral flow

Of note, patient complains of headaches on right side. No evidence of halo sign/inflammation on right temporal arteries, which are patent with normal flow.



## Case 13

US Doppler carotid artery Both
VERIFIED - Attended: 28-Sep-2021 - ZAKINZAKIN-28-Sep-2021

Carotid duplex

RIGHT		Waveform	Plaque Morphology	% Stenosis
CCA	PSV 0.67 m/s EDV 0.13 m/s	NO	Normal	IT Intimal thickening 10
Bulb			C	Calcified 50-59
ICA	PSV 1.44 m/s EDV 0.36 m/s	NO	Normal	C Calcified 50-59
ECA		NO	Normal	C Calcified >50
Vert		NO	Normal	

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LEFT		Waveform	Plaque Morphology	% Stenosis
CCA	PSV 0.46 m/s EDV 0.14 m/s	NO	Normal	IT Intimal thickening 10
Bulb			C	Calcified 30-39
ICA	PSV 0.93 m/s EDV 0.28 m/s	NO	Normal	C Calcified 30-39
ECA		NO	Normal	C Calcified >50
Vert		NO	Normal	

Comments:

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Comments:

No change compared to previous imaging:

RIGHT:  
Carotid arteries patent with normal waveforms.  
There is calcified plaque within the carotid bulb and extending into proximal ICA causing acoustic shadowing, however velocities suggest 50-59% significant stenosis.  
Tight stenosis seen in proximal ECA.  
Vertebral artery patent.

LEFT:  
Carotid arteries patent with normal waveforms.  
There is calcified plaque within the carotid bulb and extending into proximal ICA causing acoustic shadowing, however velocities and b-mode image suggest 30-39% stenosis.  
Tight stenosis seen in proximal ECA.  
Vertebral artery patent.

## Case 14

US Doppler carotid artery Both

Carotid duplex

VERIFIED

Attended: 29-Sep-2021

ZAKINZAKIN-29-Sep-2021

		Waveform		Plaque Morphology		% Stenosis
RIGHT	CCA	PSV	0.29 m/s	NO	Normal	Heterogeneous 20
	EDV	0.08 m/s				
	Bulb				H	Heterogeneous 30
	ICA	PSV	0.49 m/s	NO	Normal	Heterogeneous 30
	EDV	0.12 m/s				
	ECA			NO	Normal	Heterogeneous 30
	Vert			NO	Normal	

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		Waveform		Plaque Morphology		% Stenosis
LEFT	CCA	PSV	0.40 m/s	NO	Normal	Heterogeneous 30
	EDV	0.20 m/s				
	Bulb				H	Heterogeneous 40
	ICA	PSV	0.57 m/s	NO	Normal	Heterogeneous 40
	EDV	0.09 m/s				
	ECA			NO	Normal	Heterogeneous 30
	Vert			NO	Normal	

Comments:

Comments:

Limited views due to patient compos mentis.

Where seen, carotid disease bilaterally, however no evidence of >50% stenosis.

Normal antegrade vertebral flow.

## Case 15:

US Doppler carotid artery Both

Carotid duplex

VERIFIED

Attended: 29-Sep-2021

ZAKINZAKIN-29-Sep-2021

		Waveform		Plaque Morphology		% Stenosis
RIGHT	CCA	PSV	0.35 m/s	NO	Normal	- 0
	EDV	0.10 m/s				
	Bulb				-	0
	ICA	PSV	0.42 m/s	NO	Normal	- 0
	EDV	0.13 m/s				
	ECA			NO	Normal	- 0
	Vert			NO	Normal	

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		Waveform		Plaque Morphology		% Stenosis
LEFT	CCA	PSV	0.47 m/s	NO	Normal	- 0
	EDV	0.08 m/s				
	Bulb				-	0
	ICA	PSV	0.30 m/s	NO	Normal	Heterogeneous 10
	EDV	0.10 m/s				
	ECA			NO	Normal	- 0
	Vert			NO	Normal	

Comments:

Comments:

Normal carotid artery waveforms and velocities.

Normal antegrade vertebral flow

Case 16:

US Other Examination

VERIFIED - Attended: 29-Sep-2021 - ZAKINZAKIN-29-Sep-2021

Carotid arteries widely patent with normal flow.  
Normal antegrade vertebral flow

R IMT - 1.1mm  
L IMT - 1.1mm

Case 17:

US Doppler carotid artery Both

VERIFIED - Attended: 30-Sep-2021 - ZAKINZAKIN-30-Sep-2021

Carotid duplex

RIGHT

			Waveform	Plaque Morphology	% Stenosis			
CCA	PSV	0.58	m/s	NO	Normal	H	Heterogeneous	20
	EDV	0.18	m/s					
Bulb					H	Heterogeneous	40	
ICA	PSV	1.01	m/s	NO	Normal	H	Heterogeneous	40
	EDV	0.31	m/s					
ECA			NO	Normal	H	Heterogeneous	30	
Vert			NO	Normal				

LEFT

			Waveform	Plaque Morphology	% Stenosis			
CCA	PSV	0.86	m/s	NO	Normal	H	Heterogeneous	20
	EDV	0.22	m/s					
Bulb					C	Calcified	30	
ICA	PSV	0.40	m/s	NO	Normal	C	Calcified	30
	EDV	0.11	m/s					
ECA			NO	Normal	H	Heterogeneous	20	
Vert			NO	Normal				

Comments:

Comments:

Normal carotid artery waveforms and velocities. Carotid plaque bilaterally, <50% stenosis.  
Normal antegrade vertebral flow.

## Case 18:

US Doppler carotid artery Both

VERIFIED—Attended-20-Sep-2021—ZAKIN/ZAKIN-20-Sep-2021—

Carotid duplex

RIGHT

			Waveform		Plaque Morphology		% Stenosis	
CCA	PSV	1.09	m/s	NO	Normal	H	Heterogeneous	20
	EDV	0.13	m/s					
Bulb						C	Calcified	20
ICA	PSV	0.86	m/s	NO	Normal	H	Heterogeneous	20
	EDV	0.32	m/s					
ECA				NO	Normal	H	Heterogeneous	20
Vert				NO	Normal			

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LEFT

			Waveform		Plaque Morphology		% Stenosis	
CCA	PSV	0.79	m/s	NO	Normal	H	Heterogeneous	20
	EDV	0.11	m/s					
Bulb						H	Heterogeneous	30
ICA	PSV	>3.0	m/s	I	Increased velocities	H	Heterogeneous	80
	EDV	1.1	m/s					
ECA				NO	Normal	H	Heterogeneous	20
Vert				NO	Normal			

Comments:

Comments:

Right:  
Minor plaque

Left:  
Short length ~80% stenosis in proximal ICA. Patent distally  
Normal vertebral flow.

Report marked as Urgent. Results discussed with team

## Case 19:

US Doppler carotid artery Both

VERIFIED—Attended-20-Sep-2021—ZAKIN/ZAKIN-20-Sep-2021—

Carotid duplex

RIGHT		Waveform		Plaque Morphology		% Stenosis
CCA	PSV	0.86	m/s	NO	Normal	0
	EDV	0.18	m/s			
Bulb				H	Heterogeneous	20
ICA	PSV	0.65	m/s	NO	Normal	20-29
	EDV	0.26	m/s			
ECA				NO	Normal	10
Vert				NO	Normal	

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LEFT		Waveform		Plaque Morphology		% Stenosis
CCA	PSV	0.54	m/s	NO	Normal	10
	EDV	0.13	m/s			
Bulb				H	Heterogeneous	20
ICA	PSV	0.79	m/s	NO	Normal	20
	EDV	0.26	m/s			
ECA				NO	Normal	20
Vert				NO	Normal	

Comments:

### Comments:

Normal carotid artery waveforms and velocities.  
Normal antegrade vertebral flow.

## Case 20:

US Doppler lower limb arteries Rt VERIFIED - Attended 20-Sep-2021 - ZAKIN/ZAKIN-20-Sep-2021

Right:

CFA and ProfA patent with triphasic pulsatile flow.

SFA - diffusely calcified throughout. ~75% stenosis at proximal thigh, monophasic flow distally PSV 0.5m/s

50-75% stenosis at proximal POPA.

Very poor views of calf arteries due to patient mobility, ulcer, oedema and calcification. Flow at ankle level:

PTA patent with monophasic damped flow PSV 0.2m/s. Flow suggestive of proximal PTA disease

DPA patent with monophasic flow flow PSV 0.3m/s.

Unable to visualise PeroA ?occluded ?calcified

Conclusion:

SFA and POPA seen

Very likely crural vessel disease

## Case 21:

US Doppler carotid artery Both VERIFIED - Attended 20-Sep-2021 - ZAKIN/ZAKIN-21-Sep-2021

Carotid duplex

RIGHT		Waveform		Plaque Morphology		% Stenosis	
CCA	PSV	<input type="text" value="0.80"/>	m/s	<input type="text" value="NO"/>	Normal	- <input type="text" value=""/>	<input type="text" value="0"/>
	EDV	<input type="text" value="0.16"/>	m/s				
Bulb						- <input type="text" value=""/>	<input type="text" value="0"/>
ICA	PSV	<input type="text" value="0.66"/>	m/s	<input type="text" value="NO"/>	Normal	- <input type="text" value=""/>	<input type="text" value="0"/>
	EDV	<input type="text" value="0.23"/>	m/s				
ECA				<input type="text" value="NO"/>	Normal	- <input type="text" value=""/>	<input type="text" value="0"/>
Vert				<input type="text" value="NO"/>	Normal		
<hr/>							
LEFT		Waveform		Plaque Morphology		% Stenosis	
CCA	PSV	<input type="text" value="1.03"/>	m/s	<input type="text" value="NO"/>	Normal	- <input type="text" value=""/>	<input type="text" value="0"/>
	EDV	<input type="text" value="0.18"/>	m/s				
Bulb						- <input type="text" value=""/>	<input type="text" value="0"/>
ICA	PSV	<input type="text" value="0.74"/>	m/s	<input type="text" value="NO"/>	Normal	- <input type="text" value=""/>	<input type="text" value="0"/>
	EDV	<input type="text" value="0.24"/>	m/s				
ECA				<input type="text" value="NO"/>	Normal	- <input type="text" value=""/>	<input type="text" value="0"/>
Vert				<input type="text" value="NO"/>	Normal		

Comments:

Comments:

Normal carotid artery waveforms and velocities.

Normal antegrade vertebral flow

R IMT - 0.6mm

L IMT - 0.8mm

## Case 22

Carotid duplex

## RIGHT

				Waveform		Plaque Morphology		% Stenosis
CCA	PSV	<input type="text" value="0.90"/>	m/s	<input type="text" value="NO"/>	Normal	<input type="text" value="H"/>	Heterogeneous	<input type="text" value="10"/>
	EDV	<input type="text" value="0.18"/>	m/s					
Bulb						<input type="text" value="H"/>	Heterogeneous	<input type="text" value="20"/>
	ICA							
ICA	PSV	<input type="text" value="0.87"/>	m/s	<input type="text" value="NO"/>	Normal	<input type="text" value="H"/>	Heterogeneous	<input type="text" value="20"/>
	EDV	<input type="text" value="0.24"/>	m/s					
ECA				<input type="text" value="NO"/>	Normal	<input type="text" value="H"/>	Heterogeneous	<input type="text" value="10"/>
Vert				<input type="text" value="NO"/>	Normal			

## LEFT

LEFT	Waveform				Plaque Morphology		% Stenosis	
CCA	PSV	<div>1.01</div>	m/s	<div>NO</div>	Normal	<div>H</div>	Heterogeneous	<div>10</div>
	EDV	<div>0.31</div>	m/s					
Bulb						<div>H</div>	Heterogeneous	<div>20</div>
	ICA	PSV	<div>0.67</div>	m/s	<div>NO</div>	Normal	<div>H</div>	Heterogeneous
	EDV	<div>0.22</div>	m/s					
ECA				<div>NO</div>	Normal	<div>H</div>	Heterogeneous	<div>10</div>
Vert				<div>NO</div>	Normal			

Comments:

Comments:

Normal carotid artery waveforms and velocities and waveforms

Normal antegrade vertebral flow.

Minor plaque seen bilaterally. Site of left CEA patent with very minor neo-intimal hyperplasia.

## Case 23

US Doppler carotid artery Both PROVISIONAL - Attended-22-Sep-2021 - ZAKIN/ZAKIN-22-Sep-2021  
Carotid duplex

RIGHT

			Waveform		Plaque Morphology	% Stenosis	
CCA	PSV	<input type="text"/>	m/s	NO	Normal	H <input type="text"/> Heterogeneous	10 <input type="text"/>
	EDV	<input type="text"/>	m/s				
Bulb						H <input type="text"/> Heterogeneous	20 <input type="text"/>
ICA	PSV	<input type="text"/>	m/s	S	See comments	H <input type="text"/> Heterogeneous	SEE COMMENTS <input type="text"/>
	EDV	<input type="text"/>	m/s				
ECA				NO	Normal	H <input type="text"/> Heterogeneous	40 <input type="text"/>
Vert				NO	Normal		

---

LEFT

			Waveform		Plaque Morphology	% Stenosis	
CCA	PSV	<input type="text"/>	m/s	NO	Normal	H <input type="text"/> Heterogeneous	20 <input type="text"/>
	EDV	<input type="text"/>	m/s				
Bulb						H <input type="text"/> Heterogeneous	20 <input type="text"/>
ICA	PSV	<input type="text"/>	m/s	NO	Normal	H <input type="text"/> Heterogeneous	20 <input type="text"/>
	EDV	<input type="text"/>	m/s				
ECA				NO	Normal	H <input type="text"/> Heterogeneous	20 <input type="text"/>
Vert				NO	Normal		

Comments:

### Comments:

#### RIGHT:

ICA seen patent, however with high resistance low velocity flow, indicative of distal obstruction/occlusion.  
MCA seen patent with slightly reduced systolic rise time.  
Vertebral artery patent with antegrade flow.

#### LEFT:

Carotid arteries patent with normal flow



## Case 24

US Doppler carotid artery Both VERIFIED - Attended-22-Sep-2021 - ZAKIN/ZAKIN-22-Sep-2021

Carotid duplex

RIGHT		Waveform	Plaque Morphology	% Stenosis
CCA	PSV <input type="text"/> m/s	NO <input type="text"/>	Normal	<input type="text"/>
	EDV <input type="text"/> m/s			
Bulb				
ICA	PSV <input type="text"/> m/s	NO <input type="text"/>	Normal	<input type="text"/>
	EDV <input type="text"/> m/s			
ECA		NO <input type="text"/>	Normal	<input type="text"/>
Vert		NO <input type="text"/>	Normal	<input type="text"/>

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LEFT		Waveform	Plaque Morphology	% Stenosis
CCA	PSV <input type="text"/> m/s	NO <input type="text"/>	Normal	<input type="text"/>
	EDV <input type="text"/> m/s			
Bulb				
ICA	PSV <input type="text"/> m/s	NO <input type="text"/>	Normal	<input type="text"/>
	EDV <input type="text"/> m/s			
ECA		NO <input type="text"/>	Normal	<input type="text"/>
Vert		NO <input type="text"/>	Normal	<input type="text"/>

Comments:

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### Comments:

Limited scan performed on critical care. Views obstructed by dressings/breathing apparatus/patient mobility. However where seen carotid arteries widely patent with normal flow.

## Case 25

US Doppler carotid artery Both VERIFIED - Attended-22-Sep-2021 - ZAKIN/ZAKIN-22-Sep-2021

Carotid duplex

RIGHT		Waveform	Plaque Morphology	% Stenosis
CCA	PSV <input type="text"/> m/s	NO <input type="text"/>	Normal	<input type="text"/>
	EDV <input type="text"/> m/s			
Bulb			H <input type="text"/>	Heterogeneous 10-19
ICA	PSV <input type="text"/> m/s	NO <input type="text"/>	Normal	H <input type="text"/>
	EDV <input type="text"/> m/s			Heterogeneous 10-19
ECA		NO <input type="text"/>	Normal	H <input type="text"/>
Vert		NO <input type="text"/>	Normal	Heterogeneous 10-19

---

LEFT		Waveform	Plaque Morphology	% Stenosis
CCA	PSV <input type="text"/> m/s	NO <input type="text"/>	Normal	<input type="text"/>
	EDV <input type="text"/> m/s			
Bulb			H <input type="text"/>	Heterogeneous 10
ICA	PSV <input type="text"/> m/s	NO <input type="text"/>	Normal	H <input type="text"/>
	EDV <input type="text"/> m/s			Heterogeneous 10
ECA		NO <input type="text"/>	Normal	H <input type="text"/>
Vert		NO <input type="text"/>	Normal	Heterogeneous 10

Comments:

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Limited scan performed portably, patient Covid positive

### Comments:

Normal carotid artery waveforms and velocities.  
Normal antegrade vertebral flow

FT:  
where seen, carotid arteries widely patent with normal flow. Proximal ICA patent. Unable to visualise distal ICA due to patient positioning, however proximal flow not suggestive of distal disease.

