**Countess of Chester Hospital** 

NHS Foundation Trust

The Countess of Chester Health Park

Liverpool Road

Chester

CH2 1UL

Study Description: **US Doppler carotid artery Both** Study Date: **11/04/2023**

**Addendum created at 11/04/2023 10:23:19:**

**Ward 42 contact regarding urgent findings**

**Addendum by:**

**Clinical Vascular Scientist Nia Steeves**

**Indication:**

Left MCA stroke. Please look for stenosis of carotids

**Report:**

**CAROTID DUPLEX SCAN**

**Challenging assessment due to patient movement, sub-optimal images and views.**

**RIGHT**

Subclavian artery: Patent proximally with good triphasic waveforms, PSV 263cm/s.

Common Carotid Artery (CCA): Patent. Patent. Smooth mixed plaques forming a <30% reduction in diameter.

PSV 127cm/s EDV 24cm/s

Bifurcation: Patent. Mixed plaques, forming a <40% stenosis.

Internal Carotid Artery (ICA): Patent. Mixed, dense and calcified plaque identified in the proximal ICA. Unable to visualize the distal ICA, however waveforms in the proximal ICA are low resistance suggesting distal patency.

PSV 67cm/s EDV 22cm/s

External Carotid Artery (ECA): Patent. No evidence of any plaque morphology

PSV 158cm/s

Vertebral Artery Flow (VA): Patent where seen, with open and orthograde flow.

PSV 97cm/s

**LEFT**

Subclavian artery: Patent proximally with good biphasic waveforms, PSV 118cm/s.

Common Carotid Artery (CCA): Patent. Unable to visualize the CCA origin due to anatomy. The CCA appears echolucent with weak colour flow noted in the proximal and distal CCA with non-phasic (venous like) waveforms This is suggestive of a severe stenosis or occlusion? at the CCA origin. Suggest alternative imaging to confirm.

PSV 13cm/s EDV 9cm/s

Bifurcation: Patent. Mixed plaques, forming a <40% stenosis.

Internal Carotid Artery (ICA): The proximal ICA appears patent with dense and calcified disease forming a <50% stenosis. Unable to visualize the distal ICA, however waveforms in the proximal ICA are low resistance suggesting distal patency.

PSV 76cm/s EDV 36cm/s

External Carotid Artery (ECA): Patent. No evidence of any plaque morphology, however retrograde flow noted.

PSV 86cm/s

Vertebral Artery Flow (VA): Patent where seen, with open and orthograde flow.

PSV 40cm/s

**Conclusion**

**No evidence of significant right carotid disease.**

**Antegrade flow noted in the right and left vertebral arteries.**

**Unable to visualize the left CCA origin due to anatomy. The left CCA appears echolucent with weak colour flow noted in the proximal and distal CCA, with non-phasic (venous like) waveforms - this is suggestive of a severe stenosis or occlusion? at the CCA origin. Suggest urgent alternative imaging to confirm.**

**Flow in the left ECA is retrograde, and appears to be supplying the left ICA, supporting significant disease proximal to the ICA.**

**Priority:** **++ Urgent Finding ++**

**Reported by:**

Nia Steeves

Clinical Vascular Scientist

Countess Of Chester Nhs Trust

Final Date & Time: 11/04/2023 10:21:38