**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: **15/05/2023**

**Indication:**

high risk TIA clinic pt at 2pm. Normally well developed right leg weakness 10/5/23 ? left hemisphere CVA

**CAROTID DUPLEX SCAN**

**RIGHT**

Subclavian artery: Patent proximally with biphasic waveforms, PSV 50cm/s.

Common Carotid Artery (CCA): Patent. No evidence of any plaque morphology.

PSV 58cm/s EDV 14cm/s

Bifurcation: Patent. Mixed and dense plaques, forming a <30% stenosis.

Internal Carotid Artery (ICA): Patent. Smooth mixed and dense plaques forming a <30% reduction in diameter identified in the proximal ICA. The distal ICA appears patent.

PSV 82cm/s EDV 14cm/s

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

PSV 83cm/s

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

PSV 39cm/s

**LEFT**

Subclavian artery: Patent proximally with biphasic waveforms, PSV 115cm/s.

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

PSV 73cm/s EDV 16cm/s

Bifurcation: Patent. Dense and calcified disease obscured vessel, on colour flow imaging disease appears >50% (see below for further detail).

Internal Carotid Artery (ICA): Dense and calcified plaques identified in left carotid bifurcation and the origin of the internal carotid artery. Disease obscures both vessels for a length of ~1.57cm. Flow, where seen at the ICA origin is indicative of a 60-69% stenosis, unable to exclude a greater degree of stenosis in obscured region. Disease to the disease ICA appears patent.

PSV 202cm/s EDV 38cm/s

St. Mary’s Ratio (ICAPSV/CCAEDV): 12.6 (suggestive of a 60-69% stenosis)

PSV ratio (ICAPSV/CCAPSV): 2.8 (suggestive of a 50-69% stenosis)

NASCET diameter reduction - approx. 66%

External Carotid Artery (ECA): Patent. Intima-thickening causing a <30% reduction in lumen diameter.

PSV 106cm/s

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

PSV 52cm/s

**Conclusion**

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

**Evidence of at least a 60-69% stenosis at the left ICA origin. Unable to exclude a greater stenosis in the obscured region of the bifurcation.**

**Right and left vertebral arteries are antegrade.**

**Additional comments: TIA clinic informed of the results.**

**Priority:** **++ Significant or Unexpected Finding ++**

**Reported by:**

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