**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: **02/05/2023**

**Indication:**

Episode of reduced sensation in left arm. MRI Head showed multiple emboli. Carotid angio showed 80-90% stenosis of RCA. US doppler of carotids needed as per Stroke team to further assess.

**Report:**

**CAROTID DUPLEX SCAN**

**RIGHT**

Subclavian artery: Patent proximally with good biphasic waveforms, PSV 68cm/s.

Common Carotid Artery (CCA): Patent. Intima thickening forming a <30% reduction in diameter.

PSV 47cm/s EDV 10cm/s

Bifurcation: Patent. Dense and calcified plaques, forming a <50% stenosis.

Internal Carotid Artery (ICA): Patent. Dense and calcified plaques obscures the proximal ICA for approx. 1.7cm in length distal to the ICA origin. Raised velocities noted approx1cm distal to the ICA origin which are suggestive of a 50-59 % stenosis. Unable to exclude a greater degree of stenosis within obscured region. Distal to the disease, the mid and distal ICA appear patent.

PSV 146cm/s EDV 32cm/s (suggestive of a 50-59% stenosis)

St. Mary’s Ratio (ICAPSV/CCAEDV): 14.6 (suggestive of a 70-79% stenosis)

PSV ratio (ICAPSV/CCAPSV): 3.1 (suggestive of a 50-69% stenosis)

External Carotid Artery (ECA): Patent. Dense and calcified plaques, forming a <40% stenosis.

PSV 132cm/s

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

PSV 31cm/s

**LEFT**

Subclavian artery: Patent proximally with good biphasic waveforms, PSV 60cm/s.

Common Carotid Artery (CCA): Patent. Intima thickening forming a <30% reduction in diameter.

PSV 98cm/s EDV 22cm/s

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

Internal Carotid Artery (ICA): Patent. Mixed and dense plaques forming a <50% stenosis identified in the proximal ICA. The distal ICA appears patent.

PSV 39cm/s EDV 12cm/s

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

PSV 74cm/s

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

PSV 61cm/s

**Conclusion**

**Evidence of a significant stenosis (>50%) in the right proximal ICA.**

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

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

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

**Reported by:**

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Clinical Vascular Scientist

Countess Of Chester Nhs Trust

Final Date & Time: 02/05/2023 12:36:08