**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: **29/03/2023**

**CAROTID DUPLEX SCAN**

**RIGHT**

Subclavian artery: Patent proximally, with biphasic waveforms, PSV 172cm/s.

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

PSV 65cm/s EDV 14cm/s

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

Internal Carotid Artery (ICA): Patent. Dense and calcified plaque identified in the proximal ICA, forming a 50-59% stenosis based on velocity criteria. The distal ICA appears patent. Disease is approx. 1.58cm in length, with the stenosis approx. 0.85cm, distal to the ICA origin. ? Plaque is ulcerated. The distal ICA appears patent.

PSV 146cm/s EDV 39cm/s

St. Mary’s Ratio (ICAPSV/CCAEDV): 10.4 (suggestive of a 50-59% stenosis)

PSV ratio (ICAPSV/CCAPSV): 2.2 (suggestive of a 50-59% stenosis)

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

PSV 116cm/s

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

PSV 34cm/s

**LEFT**

Subclavian artery: Patent proximally, with biphasic waveforms, PSV 73cm/s.

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

PSV 78cm/s EDV 23cm/s

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

Internal Carotid Artery (ICA): Patent. Dense and calcified plaque identified in the proximal ICA, forming a <40% stenosis. The distal ICA appears patent.

PSV 70cm/s EDV 19cm/s

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

PSV 137cm/s

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

PSV 49cm/s

**Conclusion**

**Evidence of significant right ICA stenosis (50-59%). ? ulcerated plaque in the right ICA.**

**No significant disease identified in the left carotid arteries.**

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

**Additional comment: Stroke coordinator informed of results, and confirmed patient can go home, and they will follow up with patient.**

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

**Reported by:**

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Final Date & Time: 29/03/2023 18:05:09