**Countess of Chester Hospital** 

NHS Foundation Trust

The Countess of Chester Health Park

Liverpool Road

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Study Description: **US Graft surveillance** Study Date: **04/05/2023**

**Indication:**

Patient has Rt CLTI and has undergone Rt fem-pop bypass on 21/04/2023. She is spiking temperature and her inflammatory markers on higher side; she is on IV meropenem

**Report:**

**RIGHT ARTERIAL DUPLEX SCAN - CFA to BK POP A SYNTHETIC GRAFT BYPASS**

CFA - Obscured due to oedema, appears patent with good triphasic waveforms, PSV 75cm/s. PI 5/70.

Proximal anastomosis and Graft body - Appear patent. At the proximal anastomosis/ proximal graft there is evidence of a velocity shift, PSV increases from 75cm/s to 257cm/s and there is evidence of a caliber change see dimension below (LS plane AP measurements). In the proximal thigh turbulent waveforms noted, PSV 182cm/s. In the mid and distal thigh and the pop fossa region good monophasic waveforms PSV 38-25cm/s - Low PSV, risk of graft failure.

Native CFA: 0.63cm

Prox anast / graft: 0.43cm

Graft: 0.81cm.

There is evidence of a echolucent / low echogenic halo which surrounds the graft ? Graft infection ? compressing proximal anastomosis / proximal graft. Halo extends from the proximal anastomosis to the distal anastomosis and varies in diameter along the length of the graft.

Distal anastomosis - Patent with good monophasic waveforms, PSV 87cm/s.

ATA, PTA and Per A- Difficult to track due to oedema, appear heavily calcified, patent in distal calf with hyperemic waveforms, PSV 47cm/s, 100cm/s and 57cm/s, respectively.

**Conclusion**

**Evidence of a caliber change at the proximal anastomosis and proximal graft, with corresponding elevated velocities. Evidence of a echolucent / low echogenic halo surrounding the graft ? Graft infection ? Potentially compressing proximal anastomosis and proximal graft. PSV in the graft in the mid-distal thigh and pop fossa appear low - Risk of graft failure.**

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

**Reported by:**

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