



THE SOCIETY FOR
VASCULAR TECHNOLOGY OF
GREAT BRITAIN AND IRELAND

Sarah Green has completed this personal reflection on **04/03/2024**

Paper: Winter 2023/24 CPD questions

Personal Reflection:

ROLE OF ULTRASOUND AND COLOURED DOPPLER EXAMINATION IN THE DIAGNOSIS AND CLASSIFICATION OF THE SUPERFICIAL SOFT TISSUE ANOMALIES

Description of the learning - Research article looked into the ability of US to detect, diagnose and follow up patients with vascular anomalies after treatment. U/S was also compared with MRI and angiographic studies.

Evaluation - Patients from 2019 to 2021 with cases of vascular anomalies who attended the radiology department in Abo El-Rish hospitals (egypt) had U/S imaging of their vascular anomaly - B mode imaging was used to define the lesion profile, colour and power Doppler provided information on the presence of blood flow. Spectral Doppler revealed information on the haemodynamics of the vessels in the anomaly. Other imaging modalities were done as needed and the U/S results were compared to MR, angiography or CT. Patients were given treatment of the vascular anomalies and U/S follow up was done every 1 month after receiving medications/injections.

Analysis - Significantly more females had vascular anomalies than males (ratio 3:1), U/S was accurate in detecting venous, arterial and lymphatic/cystic malformations, but MR imaging had the advantage in the detection of larger and deeper lesions, and retro-orbital lesions.

Conclusion - It was found by the authors that U/S was an effective and accurate method during diagnosis, classification, detection of early complications and follow up after treatment in vascular malformations.

Action Plan - This article helped to increase my knowledge of the U/S appearances of vascular malformations. It was also helpful to bear in mind that U/S is accurate in being able to characterise the vascular malformations, but alternative imaging may be better when vascular lesions are deep/retro-orbital.

TRANSCATHETER ARTERIALIZATION OF DEEP VEINS IN CHRONIC LIMB-THREATENING ISCHEMIA

Description of the learning - This article was a prospective, single group, multicentre study that investigated the use of transcatheter arterialization (usually proximal PTA to PTV AVF) in limb salvage and wound healing in patients with no further endovascularisation treatment options.

Evaluation - Between 2019 and 2022, patients with chronic limb threatening ischemia with no option for arterial revascularization were selected for transcatheter arterialization in the US. Patients were followed up at 2 weeks and at 1, 2m 3, 6, 9, and 12 months, and annually to year 3 following intervention.

Analysis - Amputation free survival at 6 months was 66.1%. Wounds were completely healed in 25% of patients, and were in the process of healing in 51% of patients.

Conclusion - The authors concluded that transcatheter arterialization of the deep veins is safe, and can be performed in patients with chronic limb ischemia with no surgical or endovascular options.

Action plan - I have previously seen patients who have underwent this procedure in the UK

(part of a small trial population) - at that time it was felt by the consultant that these patients had a poor prognosis with a poor surgical outcome (that patient did die not long after I saw them). It is an interesting article that in fact demonstrates that there are potential benefits for this treatment, with better outcomes post-op. It would be interesting to see survival/amputation free rates for patients in years to come. The vascular sonographer should be aware of this endovascular treatment in case they are asked to provide ultrasound surveillance for the PTA/PTV fistula.