THE SOCIETY FOR VASCULAR TECHNOLOGY OF GREAT BRITAIN AND IRELAND

Minta Palmer has completed this personal reflection on **22/05/2024**

Paper: Autumn 2023 CPD Questions

Personal Reflection:

Description of the Learning: Autumn 2023 CPD Questions - Non-Vascular Considerations When Interpreting Extremity Arterial and Venous Examinations

Analysis: This is a pictorial article documenting common incidental findings encountered during peripheral vascular scans. Normal and abnormal examples are demonstrated, with characteristics and location described.

Conclusion: Very good descriptions of the appearances of normal vs abnormal lymph nodes, subcutaneous oedema, soft tissue fluid collections, soft tissue masses and MSK injuries. Each description includes an ultrasound image as well as details regarding the shape, contour, echogenicity and vascularity of each.

Benefit to Current Practice: We currently have a variety of clinicians scanning patients, both sonographers, vascular scientists, and radiologists, with some specialising in MSK, general abdominal and vascular. For those clinicians who do not regularly perform MSK scans, this is a useful guide of incidental pathology. It will also be helpful for our ultrasound students who may not have encountered these findings before.

Benefit to Service User: Being able to accurately identify abnormal lymph nodes and muscle injuries from more benign findings, will allow the clinician to quickly escalate those conditions which need further investigation or specialist referral. This would not only improve the patient's experience on the day, by providing some insight into the problem, but would speed up their treatment and recovery by eliminating the need to have additional scanning.

Description of the Learning: Autumn 2023 CPD Questions - Agreement of Clinical Tests for the Diagnosis of Peripheral Arterial Disease

Analysis: This is a prospective study of 50 diabetic patients (100 limbs total) who underwent pulse palpation, arterial waveform analysis, ABPI, digital pressure, TBPI, and transcutaneous oxygen pressure measurements in order to compare each modality in their efficacy in detecting PAD.

Conclusion: Doppler waveform analysis reported the highest percentage of patients who were positive for PAD, followed by TBPI, ABPI, digital pressure, TCP02 and pulse palpation. The highest of patients who did not have PAD (i.e. false positive results) were recorded by pulse palpation, followed by TCP02, digital pressure, ABPI, TBI, and doppler waveform analysis. While this study didn't compare the findings with a gold standard diagnostic modality, it did demonstrate the there is significant discrepancies between the most commonly used screening tools for PAD, even in the hands of experienced practitioners. The article advocates for comparing these screening methods against a gold standard test in order to determine which

of these tests would be more beneficial.

Benefit to Current Practice: In my current practice, our PAD screening is performed by our Vascular Nurse Practitioner and Vascular Consultants. It is common for patients to be referred for CTA due to non-palpable femoral pulses, only to find that there is no significant iliac arterial disease. There is also frequent discordance between hand-held Doppler findings of monophasic waveforms, which are recorded as biphasic during Spectral Doppler waveform analysis. It would be beneficial to have a PAD screening tool which was easy for everyone to use, and also highly accurate and sensitive. I find it interesting that the one tool that produced the highest false positive PAD findings is the primary tool used in our clinics, and the test which determines whether a patient undergoes Doppler ultrasound or CTA.

Benefit to Service User: Having a simple and effective test to identify PAD quickly, and in an outpatient clinical setting would be very beneficial to patients, as it would prevent the patient from having to attend multiple visits for diagnosis and treatment. We do not currently have a one-stop arterial clinic, so all patients end up attending multiple appointments for diagnosis. Given that this condition typically affects older patients, and that those patients have limited mobility, this poses a significant difficulty and expense.