THE SOCIETY FOR VASCULAR TECHNOLOGY OF GREAT BRITAIN AND IRELAND

Heather Holmes has completed this personal reflection on **26/07/2018**

Paper: Spring 2018 CPD Questions

Personal Reflection:

Description of Learning

Review of papers looking at anatomy, etiology, pathogenesis, clinical presentation and treatment of thoracic outlet syndrome (TOS), with a focus on vascular TOS; venous (vTOS) and arterial (aTOS).

Evaluation

This pair of papers helped lay out in a very logical way the important information around this syndrome. The first paper gives an excellent overview of the causes and presentation of TOS as well as looking at how duplex ultrasound of the area can help with diagnosis. It focusses on the more contemporary diagnostic and management approach to vascular TOS given the increased popularity of endovascular techniques. The second paper looks more in detail about the treatment options for aTOS, highlighting the various surgical and medical options, depending upon the cause of the compression and whether there has been any injury to the artery or vein as a result.

Analysis

I have seen relatively few TOS patients in my time working as a Vascular Scientist, hence my experience is limited.
I found it very useful to better understand the various causes of TOS and how these lead to the types of pathology that would could potentially see on duplex, including post-stenotic dilations and aneurysmal areas, arterial compression, venous thrombosis, and distal embolization. Understanding how the condition can be treated helps inform me about what to look for during my scan. Duplex ultrasound has the advantage of being able to assess dynamic blood flow changes, especially upon performing the manoeuvres which provoke symptoms. The limitations of duplex are that it cannot provide detailed information about the surrounding structures causing the problem, hence contrast enhanced CT and MR are used to provide further confirmation of location and nature of compression and assess which surrounding structures are likely to be causing the compression.

Conclusion

As a result of reading these papers, I am better informed about the syndrome as a whole. I feel I would be better prepared in terms of what information to provide a surgeon in order to aid a diagnosis. This in turn should help provide a better service for my patients. Longer-term, this information will help guide development of our local protocol for scanning these patients. This should mean that patients in our region get an effective, informative and detailed scan no matter who they are being scanned by.

As a result of being better informed about this condition, I am more likely to consider it if a patient were to present with upper extremity oedema and dilated subcutaneous collateral veins or arm/shoulder pain and arm/hand ischaemia. I will also feel better equipped to answer patients questions about the condition.

Action Plan

I intend to share these papers with my colleagues and use them as a discussion point to help direct decisions about our local protocol.
Our department has recently undergone considerable reorganisation, with vascular surgical work being taken over by another hub hospital. We do however still see patients pre and post-surgery and a robust local protocol to follow which reflects the requirements of surgeons at our hub hospital is important. We are therefore aiming to update our local protocol to reflect these changes. Reading these papers will help me direct my questions when asking surgeons what they would like us to include in our scans, for example, whether we should be comparing brachial pressures using hand held Doppler and a B.P. cuff as a starting point.