



Felicity Woodgate has completed this personal reflection on **14/11/2017**

Paper: Autumn 2017 CPD Questions

Personal Reflection:

Description of Learning:

This CPD learning task involved critically reviewing the literature reported in two published papers in order to answer a set of questions. These papers were: "Use of Colour Duplex Ultrasound as a First Line Surveillance Tool Following EVAR is Associated with a Reduction in Cost without Compromising Accuracy" Gray.et.al.2012 and "3D Contrast Enhanced Ultrasound for Detecting Endoleak Following Endovascular Aneurysm Repair" Abbas.et.al.2014.

Evaluation:

The first study demonstrated that duplex ultrasound could supersede CT as a postoperative surveillance tool following EVAR without compromising imaging accuracy and could provide significant cost savings for patients and institutions in the future. This paper reviewed the images of 145 patients between 2003 and 2010 from both colour duplex and CT. Endoleaks were detected on 87 colour duplex scans and 25 CT scans. These were largely type 2 endoleaks with only a handful of type 1 endoleaks detected, and no type 3 or type 4. This study group concluded that if a colour duplex protocol (patient fasted for 6hours before, scan at 7 days post op, 1 month, 6 months and 1 year) was employed as the first line surveillance a reduction in the number of post operative CT scans would be reported and this may result in a cost saving of ~82,585 euros.

The second paper found that although CT is widely used for endoleak detection it is expensive with a high risk to patients of kidney failure, 3D contrast ultrasound has a relatively similar sensitivity for the endoleak detection and is far less expensive. It compared the 30 images of 23 patients finding endoleaks in 17 images from CT, 18 images on 2D contrast enhanced ultrasound (CEUS) and 18 images on 3D contrast enhanced. When measuring the sensitivity of 3D CEUS they found that it may be more sensitive than the current surveillance tool CT and 2D CEUS.

Analysis:

In my opinion this was highly topical and informative learning. It firstly reviewed a topic well known to me as an individual based at a large arterial centre for EVAR surveillance. It then built upon this previous knowledge in order to introduce something new and an imaging modality we wish to implement in our own Unit to promote service development. I struggled initially to find the time to concentrate away from my normal clinical duties however found that by reading both papers initially in a relaxed environment before re-reading them on my admin time allowed me to answer the questions far more easily.

Action Plan:

Further reading around CEUS to promote service development and its use within our service. Take more time away from the clinical environment to read current literature before trying to implement change.