



Correspondence

Re: Use of Colour Duplex Ultrasound as a First Line Surveillance to Following EVAR is Associated with a Reduction in Cost without Compromising Accuracy

Duplex Ultrasound will Reduce Costs of EVAR Surveillance but the Addition of Microbubble Contrast will Improve this Further

We were delighted to read the study of 145 patients in Dublin over seven years which compared CT and duplex ultrasound scan surveillance for EVAR.¹ In our unit we have adopted a similar first line surveillance programme using duplex ultrasound and abdominal x-ray like yourselves. However, in addition, we have also employed the use of contrast-enhanced ultrasound using microbubble contrast in a subset of patients where endoleaks require delineation or type definition as well as troubleshooting in cases where we know there is sac size expansion in without endoleak on CT. We have found contrast ultrasound particularly helpful as have numerous groups in the literature for these selected patient groups.^{2–5} The additional cost for adopting contrast-enhanced ultrasound scan is minimal when compared with the price of traditionally performed CT surveillance programmes, which were traditionally performed.

We would like to ask the authors if they have used any microbubble contrast for their surveillance? and if not why not? The use of contrast-enhanced ultrasound would reduce the proportion of additional scans required due to bowel gas or body habitus. We have found the contrast microbubble reduces this uncertainty. One other feature of your study which we felt we would like explained were the actual costings and total periods of clinical evaluation following endovascular stenting? We regularly see our patients at six month or yearly intervals to see if they are improving symptomatically and also to assess procedural recovery. We have also found that if the patient is symptomatic, then this correlates extremely well with unsatisfactory results from stent-grafting. However, we are delighted with the results you present and are in agreement in championing duplex ultrasound as the primary surveillance tool for patients who have undergone endovascular aneurysm repair, but also recommend the addition of contrast-enhanced ultrasound scan in selective cases.

References

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Comment on 'Endovascular Repair of Abdominal Aortic Aneurysm Does Not Improve Early Survival versus Open Repair in Patients Younger than 60 Years'

Dear Sir,

We were interested to read the retrospective study by Gupta et al.¹ which compared endovascular repair of abdominal aortic aneurysm (AAA) with open repair in patients younger than 60 years of age. Not surprisingly this constituted a small percentage of the total number of AAA repairs performed within the 2007–9 NSQIP data and as such is a unique cohort worthy of study.

By the very nature of the study design the authors were unable to undertake a randomised approach or adequately match their two comparison groups. As such they have opened their study to considerable selection bias. Leaving patient allocation to EVAR or

open repair to individual clinicians and hospitals is likely to lead to varying risk profiles between the two groups with treatment choice likely based on factors such as aneurysm size and patient co-morbidities.

In their discussion, the authors go onto compare their study to previous trials such as the EVAR1 and DREAM study. In order to be included in the EVAR1 and DREAM trials, aneurysm size had to be greater than 5.5 and 5 cm in size respectively.^{2,3} The present study did not, however, have such strict inclusion criteria, with no data on aneurysm size available.

We know that 30 day mortality rates were higher in both the EVAR1 and DREAM trials than that of the current study, with the authors putting this down to the older age of the patients and associated increase in co-morbidities. However, without knowing the aneurysm size of included patients we feel it would be unwise to compare mortality outcomes between this study and previous ones.

In conclusion, we feel that if we are to use a study as part of the informed consent process for patients then these important issues should be addressed.

References

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