Letters to the editor

The British Heart Journal welcomes letters commenting on papers that it has published within the past six months.

All letters must be typed with double spacing and signed by all authors.

No letter should be more than 600 words.

In general, no letter should contain more than six references (also typed with double spacing).

Guidelines for specialist training in cardiology

Sir, I strongly endorse the view of your editorial that the publication of guidelines for the training of cardiologists should be welcomed. These guidelines suggest that competence at temporary cardiac pacing should be established during the first 5 years of higher professional training and that a minimum of 25 procedures be performed. This recognises the fact that temporary cardiac pacing can be technically difficult and that serious complications sometimes arise.

In practice, however, temporary pacing is a procedure that is learned by senior house officers (SHOs) undergoing general professional training. In a recent survey, 81% had learned temporary cardiac pacing at SHO level and teaching was provided primarily by medical registrars and fellow SHOs. A median of two procedures had been performed under supervision before the SHO was left to perform temporary cardiac pacing unsupervised.

Problems and complications with temporary cardiac pacing are frequent. This partly reflects the inexperience of junior medical staff who largely provide this service. The primary aim in providing guidelines for specialist training in cardiology must be to provide a better-cardiological service, through raising the standards of individual trainees. The problems with temporary cardiac pacing will not be addressed by guidelines alone.

Training in cardiology: the future

Sir,—Dr Boyle and his colleagues on the Specialist Advisory Committee in Cardiovascular Medicine of the Royal College of Physicians are to be thanked for their efforts at initiating guidelines for specialist training in cardiology. I did note with interest that in basic training the trainees are told that they must have basic knowledge of the physics of ultrasound and radioisotope imaging, yet no similar requirement is made for the physics and technical aspects of angio-cardiography. Perhaps the need was too obvious to state? Nevertheless I find that many cardiology trainees have a poor appreciation of x-ray technology, yet are training in the discipline that arguably delivers a greater radiation dose than many other types of imaging. The guidelines refer to the need for individuals to have a certificate of attendance at a course of radiation protection, but it must be pointed out that such a certificate is not adequate for an investigator who is performing angiocardiography and that the legislation concerning radiation in medicine does require adequate training in equipment techniques. This advice is very nicely summarised in a recent pamphlet from the Department of Health (Health Service Use of Ionising Radiation HSG (95)) which should be read by anyone performing cardiac catheterisation.

I have to add to the burden of knowledge that a trainee must assimilate but perhaps the time has come to recognise the amount of radiation that is employed by cardiologists and to institute some element of formal training in x-ray hardware for the cardiological trainee. I am sure there are many of us who would be only too pleased to participate in this effort.

J B PARTRIDGE
Harfield Hospital, Harfield, Middlesbrough, TS9 5HJ

This letter was shown to the authors, one of whom replies as follows:

Sir,—I read with interest the suggestion from Dr Partridge that there should have been a greater emphasis on the physics and technical aspects of angio-cardiography in the guidelines for training in cardiology. It had been assumed that the physics required would be addressed during courses on radiation protection. It is accepted that cardiologists in training should understand the technical aspects of any equipment that they control, particularly equipment that is expensive and potentially hazardous. A contribution on this topic would be welcomed if the guidelines are revised.

R M BOYLE
Department of Cardiology, York District Hospital, Wigginton Road, York YO3 7HE

Warm blood cardioplegia

Sir,—We read with interest the commentary by Youhana on warm blood cardioplegia and would like to clarify some of the issues that were raised.

Youhana implies that continuous normothermic blood cardioplegia (CNB) has unanimously been shown to be superior to standard hypothermic techniques. Though Lichtenstein et al showed that myocardial temperature was reduced when CNB was used in patients with long cross clamp times and after recent myocardial infarction, others found no difference in mortality between warm and cold cardioplegic techniques in patients undergoing urgent or emergency revascularisation. Furthermore, many of these studies are flawed by the use of retrospective controls to represent the hypothermic groups. The largest randomised study to date compared warm and cold cardioplegic techniques in 1732 patients and showed no significant difference in mortality or the incidence of non-fatal Q wave infarction between the groups. Therefore, we suggest that currently there is no convincing evidence that overall clinical outcome is improved by the use of CNB.

The commentary fails to address the important issue of adequate delivery of cardioplegia when warm techniques are used for myocardial protection. Evidence from experimental models suggests that efficient delivery of cardioplegia may be far more important than the temperature of the solution used. In pigs antegrade warm blood cardioplegia resulted in reduced regional and global left ventricular function and increased necrosis compared with retrograde after left anterior descending artery perfusion and reperfusion. Though surgeons using cold blood cardioplegia can take comfort in the knowledge that they do not compromise myocardial protection by using a technique employing intermittent periods of ischaemia, those who advocate warm blood cardioplegic techniques must beware of inadequate delivery of cardioplegia in the face of coronary vascular disease.


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