Reply to the Letter to the Editor

Reply to Mishra

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We thank Dr Mishra for his perceptive and insightful comments [1] concerning both our recent study published in EJCTS [2] on intermittent cross-clamp fibrillation (ICCF) and the provocative editorial comment that accompanied the article [3], and we are pleased that he found them interesting. Dr Mishra makes some very valid points in his letter concerning the use of ICCF; certainly at St Thomas’ Hospital the technique is used relatively routinely by a number of surgeons with excellent results. Our initial study concerning the protective effect of ICCF [4] was prompted by a belief (by one of us) that cardioplegia should be more protective than ICCF; however, to our surprise, it was demonstrated that ICCF had an intrinsic protective effect equivalent to multidose cardioplegia (at least under our experimental conditions with similar extent of ischaemic injury). In the discussion, we speculated that preconditioning might be a factor involved in this protection, but the study was not designed to investigate that mechanism of action; hence, our recent study where this question was specifically addressed [2] and demonstrated to be the case. In his Editorial [3], Dr Vaage comments that although our study supports previous beliefs of surgeons that ICCF must involve a preconditioning mechanism of protection, nevertheless the technique should probably be abandoned. This would avoid the potential danger of an increased incidence of stroke or neurologic injury due to repeated cross-clamping of the atherosclerotic aorta in the older patient population currently undergoing revascularisation surgery. Whilst we concede that this may be a problem in older patients, it must be relatively easy at the time of surgery to determine whether the aorta is suitable for multiple cross-clamp or whether cardioplegia should be used. The increasing and routine use of transesophageal echo during cardiac surgery will allow further identification and characterisation of the atherosclerotic status of the ascending aorta to assist decisions on use of protective technique. The technique of ICCF is used in a considerable number of patients requiring revascularisation at St Thomas’ Hospital, and the incidence of stroke is no higher than other centres. We suggest that the main concern with the ICCF technique relates to problem patients requiring extended ischaemic periods, which will test the protective efficacy of ICCF. We recently showed [5] that exacerbation of myocardial injury caused by increasing episodes of ICCF could be attenuated by administration of a sodium—hydrogen exchange inhibitor throughout the ischaemia and reperfusion episodes, and similar drug treatment may be useful when inexperienced registrars are learning this technique. Hence, we agree with both viewpoints; surgeons should be aware of the limitations of the technique and be prepared to tailor their technique to the specific patient as presented, but any technique should not be abandoned out of hand because of perceived problems that have not necessarily been shown to occur in a clinical situation.

References


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Letter to the Editor

Stress on pleiotropic effects of statins

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I read with interest recent article by Chello et al. [1] where they have discussed the effect of atorvastatin on arterial endothelial function following cardiopulmonary bypass. This is an excellent article well conceived and well written. I would like to add a few comments.

This article is another in a series of recent articles on pleiotropic effects of statins. Statins seem to be capable of modulating a number of abnormalities of inflammation, endothelial function and coagulation [2]. In recent times, it has become increasingly clear that the beneficial effects of statins extend well beyond their lipid lowering actions.

The clinical details of the patients (such as average age 54 ± 4.4 years, average number of grafts 2.3 ± 0.4) clearly indicate that that the patient population selected was relatively low risk to start with. The exclusion criteria (which included diabetes mellitus as well) ensured that these patients were in any case less liable to suffer from postoperative morbidity and mortality. Add to this the small sample size of the study and it is obvious that the results cannot be generalised to the average CABG patients in