Endotoxaemia during left ventricular assist device insertion

Editor—We read with interest the excellent article by Dr O’Malley and colleagues on 12 left ventricular assist device (LVAD) insertion patients, describing the association between endotoxaemia and increased gastric PCO₂–arterial PCO₂ gap.1 Work performed at University College, London demonstrated the relationship between increased gastric PCO₂–arterial PCO₂ gap and development of postoperative complications in cardiac valve replacement surgery. In our study we failed to find a relationship between perioperative changes in endogenous plasma endotoxin-core antibody (EndoCAb) levels and the development of an increased PCO₂ gap. However, we did report an increase in the specificity of the tonometer for predicting complications in these patients (n=46) when applied to those with low preoperative IgM EndoCAb levels.2

The combination of these studies implies that selective targeting of patients for perioperative tonometric monitoring according to their preoperative EndoCAb risk status would give us a population more likely to develop complications, because of their inability to cope immunologically with the effects of gut mucosal hypoperfusion. It may also allow for the more rational use of tonometry.

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Editor—Thank you for the opportunity to reply to Dr Hamilton-Davies. We agree that the measurement of EndoCAb concentration may help to identify patients at higher risk of postoperative morbidity. No doubt, the identification of patients at risk for complications after cardiac surgery would permit targeted preventative strategies and treatment. We believe that the results of our study1 add to the growing body of evidence that suggests that endotoxin and gut mucosal ischaemia are relevant to the pathogenesis of postoperative complications.

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