EDITORIAL

Current challenges in vascular anaesthesia

S. J. Howell¹, J. P. Thompson² and M. G. Irwin³

¹ Leeds Institute of Biomedical and Clinical Sciences, University of Leeds, Clinical Sciences Building, St James’s University Hospital, Leeds LS9 7TF, UK.

² Department of Cardiovascular Sciences, University of Leicester; Anaesthesia & Critical Care, University Hospitals of Leicester NHS Trust, Robert Kilpatrick Building, Leicester Royal Infirmary, Leicester LE2 7LX, UK.

³ Department of Anaesthesiology, The University of Hong Kong, Queen Mary Hospital, 102 Pokfulam Road, Pokfulam, Hong Kong;

*Corresponding author. E-mail: s.howell@leeds.ac.uk

The British Journal of Anaesthesia is delighted to offer this special issue on Current Challenges in Vascular Anaesthesia. Vascular diseases are responsible for 17.3 million deaths per year worldwide; that is, 31% of global mortality. Cardiovascular disease remains a huge burden worldwide. Even as the rates of cardiovascular mortality have decreased in more economically developed countries, they have continued to increase elsewhere.

Cardiovascular mortality rates in Western Europe and North America are in the range of 120–238 deaths per 100 000. This compares with death rates of 240 to 362 per 100 000 in China and rates of over 360 per 100 000 in India and several South East Asian countries.¹ This special issue is linked to the 2016 World Congress of Anaesthesia being held in Hong Kong. As a leading international journal of anaesthesia, we are proud to have a strong presence in China, South East Asia, and Australia. The BJA is affiliated with the Hong Kong College of Anaesthetists. In 2015, the Journal published papers from China, Hong Kong, Taiwan, Japan, South Korea, Australia, and New Zealand.

The special issue is edited by Professors Simon Howell (Editorial Board Member, BJA), Jonathan Thompson (Editor, BJA), and Michael Irwin (Guest Editor for the special issue). It is with Michael’s help and support that we have been able to include reviews by leading authors in Hong Kong and Australia for this special issue in addition to contributions from leading figures in Europe and the UK. The special issue covers a range of vascular topics. The challenges presented by new endovascular and aortic surgery techniques are outlined by Professor Stephen Cheng² of the University of Hong Kong. Drs So and Poon³ of the Department of Anaesthesiology of Queen Mary Hospital, Hong Kong give a detailed account of the neuromonitoring strategies available for carotid and aortic surgery and highlight the fact that intraoperative management and the choice of anaesthetic technique can have a direct impact on the effectiveness of such monitoring. This review of Neuromonitoring complements an overview by Professors Scott and Denton⁴ from Melbourne of strategies for spinal cord protection in patients undergoing major aortic surgery. Their review examines the translation into clinical practice of the recent position statement on spinal cord monitoring from the European Association of Cardiothoracic Surgery. Yang and colleagues⁵ from Dr Daqing Ma’s group at Imperial College in the UK give an overview of organ protection strategies, and Xia and Irwin⁶ explore the impact of ischaemic pre- and post-conditioning. Moving to specific organ protection, Wong and colleagues⁷ examine the pathophysiology and prevention of contrast-induced nephropathy in patients undergoing vascular surgery. The development of new antiplatelet and anticoagulant drugs has added significant
complexity to perioperative coagulation management in vascular surgery patients. These challenges are explored in a review by Koenig-Oberhuber and Filipovic of St Gallen, Switzerland. They point out that many accepted practices, such as the use of bridging therapy in patients on systemic anticoagulation for atrial fibrillation, are not supported by new evidence. The common use of such drugs together with the potential for significant haemorrhage during surgery has motivated a review on the management of bleeding in vascular surgery by Chee and colleagues. Finally, a significant proportion of patients undergoing major vascular surgery have severe or chronic pain as a result of their disease. A review by Dr Colvin of Edinburgh, an editor of the British Journal of Anaesthesia, writing with Dr Serenty, examines the often vexed issue of the management of pain patients with major vascular disease. The British Journal of Anaesthesia is delighted to launch this special issue on the state of the art in vascular anaesthesia. We hope meets that it meets the needs of clinicians and scientists in equal measure and helps to improve the care of patients undergoing vascular surgery around the world.

References