Minimal invasive haemodynamic monitoring

There has been continuing interest in clinical usefulness of minimal invasive tools for continuous haemodynamic monitoring. Ilies and colleagues (pages 413-19) have shown that, during Caesarean section under spinal anaesthesia, continuous non-invasive arterial pressure monitoring was able to detect higher frequency and magnitude of hypotensive episodes when compared with conventional intermittent blood pressure monitoring. Importantly, they showed that maternal hypotension, as detected by continuous monitoring of arterial pressure, was associated with lower umbilical vein pH of the newborns. Monnet and colleagues (pages 330-8), in their study of dynamic circulatory indices in critically ill patients, found non-invasive pulse pressure variation to be as good as invasive pulse pressure variation in predicting fluid responsiveness, further confirming the usefulness of non-invasive monitoring. Zhang and Mukkamala (pages 339-44) have presented a validation study of changes in cardiac output in critically ill patients as assessed by long term interval analysis of arterial pressure waveform by comparing it with thermodilution technique; they found their minimal invasive method to be comparable with thermodilution technique in detecting relative changes in cardiac output. Finally, Bouwman and Boer (pages 299-302), in their editorial, discuss the strengthening position of minimal invasive cardiac output monitoring in the area of perioperative fluid management.

Difficult airways

In this issue of BJA, Ng and colleagues (pages 439-43) present a randomized controlled study of comparison between McGrath video laryngoscope and C-MAC video laryngoscope for tracheal intubation in adult patients with potentially difficult airways. They concluded that, when used in patients with Mallampati score of 3 or more, C-MAC video laryngoscope, compared with McGrath video laryngoscope, allowed quicker intubation with fewer attempts and greater ease.

Supraglottic airway devices are increasingly being used in clinical anaesthesia and emergency medicine. In patients with airway obstruction, who have supraglottic airway device in situ, use of high inspiratory pressures in an attempt to ventilate the lungs can increase risk of oesophageal insufflation. In a cadaver study, during simulated airway obstruction, Schmidbauer and colleagues (pages 454-8) have shown that the risk of oesophageal insufflation was minimal if the inspiratory pressure were kept below 20 mbar.

Postoperative outcomes

Some studies in this issue of BJA have focused on the patient outcomes. In contrast to the previously suggested risks associated with nitrous oxide, Sanders and colleagues (pages 361-7), in their subgroup analysis of GALA trial, found no evidence of increased risk of mortality, stroke or myocardial infarction with the use of nitrous oxide in patients undergoing carotid artery surgery. Glossop and colleagues (pages 305-14), in a meta-analysis of 16 randomized controlled trials, have provided important evidence in favour of using non-invasive ventilation in intensive care patients during weaning from mechanical ventilation.

Recently, there have been a few reports on sub-optimal perioperative management of patients undergoing emergency abdominal surgery. In the UK, Emergency Laporotomy Network has been established to address this issue nationally. Saunders and colleagues have presented the first report of the network in which they have shown evidence of high mortality in this patient group. In addition, this report points to the variability in the care provided, and the areas where improvements can be made; these include pre-optimization, consultant presence and availability of high dependency care.