THIS MONTH IN
Anesthesiology

Efficacy and Safety of Melatonin as an Anxiolytic and Analgesic in the Perioperative Period: A Qualitative Systematic Review of Randomized Trials (Review Article) 968

Melatonin premedication is effective in reducing preoperative anxiety.

Sitting Posture Decreases Collapsibility of the Passive Pharynx in Anesthetized and Paralyzed Patients with Obstructive Sleep Apnea 812

Sitting is an advantageous posture over supine posture during induction of anesthesia.

Development and Feasibility of a Scale to Assess Postoperative Recovery: The Post-operative Quality Recovery Scale 892

The Post-operative Recovery Scale can discriminate recovery in multiple domains at multiple times.

Isoflurane Preconditioning in Cardiomyocytes Derived from Human Embryonic Stem Cells 906

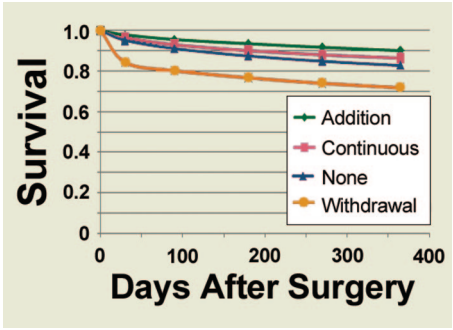
This study indicates the feasibility of using stem cells as an experimental model of human cardiomyocytes for preconditioning.

Smoking and Pain: Pathophysiology and Clinical Implications (Review Article) 977

Smoking is a risk factor for chronic painful conditions.

Association of the Pattern of Use of Perioperative β-Blockade and Postoperative Mortality 794

For perioperative β-blockade, early studies demonstrated reduced risk of myocardial ischemia and infarction; however, more recent studies showed increases in bradycardia, hypotension, strokes, and all-cause mortality. This epidemiologic retrospective study analyzed the association of the pattern of use of perioperative β-blockers with postoperative mortality. The pattern of use was divided into four groups: None, Addition, Withdrawal, and Continuous. In patients meeting Perioperative Cardiac Risk Reduction indications for perioperative β-blockade, Addition was associated with a reduction in 30-day (odds ratio [OR], 0.52; 95% confidence interval [CI], 0.33 to 0.83) and 1-yr mortality (OR, 0.64; 95% CI, 0.51 to 0.79). Continuous was also associated with a reduction in 30-day (OR, 0.68; 95% CI, 0.47 to 0.98) and 1-yr mortality (OR, 0.82; 95% CI, 0.67 to 1.0). Withdrawal was associated with an increase in 30-day (OR, 3.93; 95% CI, 2.57 to 6.01) and 1-yr mortality (OR, 1.96; 95% CI, 1.49 to 2.58). This study demonstrated that in using the Perioperative Cardiac Risk Reduction protocol, adding or continuing β-blockers to appropriate patients was associated with a reduction in mortality whereas withdrawal increased mortality. *See the accompanying Editorial View on* **page 767**



Delayed Time to Defibrillation after Intraoperative and Periprocedural Cardiac Arrest 782

Little is known about response times and outcomes time to defibrillation for intraoperative and periprocedural cardiac arrest. In a retrospective study of data from the American Heart Association registry, this relationship was examined. Data from 865 patients who had intraoperative or periprocedural cardiac arrest because of ventricular fibrillation or pulseless ventricular tachycardia in 259 hospitals were examined. The median time to defibrillation was less than 1 min. Delays in defibrillation occurred in 13.8% of patients. Characteristics associated with delayed defibrillation included pulseless ventricular tachycardia and noncardiac admitting diagnosis. For patients who arrested outside the operating room, delayed defibrillation was associated with a lower probability of surviving to hospital discharge (31.6% *vs.* 62.1%). This was not the case for cardiac arrests in the operating room (46.8% *vs.* 39.6%). Delayed defibrillation after cardiac arrests was associated with lower rates of survival only in periprocedural areas, but not in the operating room. *See the accompanying Editorial View on* **page 765**

Prediction of Pediatric Endotracheal Tube Size by Ultrasonography 819

Proper endotracheal tube (ETT) size is required to optimize ventilation and to reduce adverse events in pediatric patients. This study utilized ultrasonography to determine if subglottic diameter would better predict optimal ETT size compared with existing methods. One hundred ninety two patients, aged 1 month to 6 yr, scheduled for surgery undergoing general anesthesia, were enrolled. In the study group, the subglottic upper airway diameter was measured *via* ultrasonography and then standard age-based formulas were used to select ETT size. In a validation group, ETT size was selected based on ultrasonography. Subglottic upper airway diameter highly correlated with outer ETT diameter deemed optimal on clinical grounds (98% agreement for cuffed and 96% for uncuffed ETTs). Appropriately sized ETT selection was improved by first measuring subglottic airway diameter with ultrasonography compared with age- and height-based formulas in pediatric patients.