

# THIS MONTH IN *Anesthesiology*

## Procaine Spinal Neurotoxicity (Case Report) ..... 349

A case of permanent cauda equina syndrome after procaine spinal anesthesia is discussed.

## Lung Injury after *In Vivo* Reperfusion: Outcome at 27 Hours after Reperfusion ..... 269

After ischemia, reperfusion for longer periods is characterized by sustained inflammation and edema formation in the ischemic and nonischemic lung.

## Morphine versus Mexiletine for Treatment of Postamputation Pain: A Randomized, Placebo-controlled, Crossover Trial ..... 289

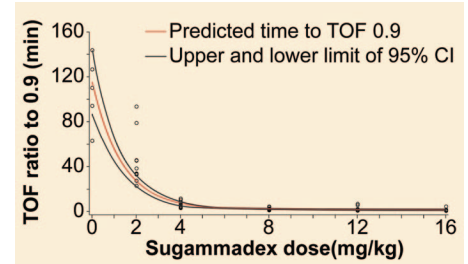
Sustained-release morphine, but not mexiletine, attenuated postamputation pain. See the accompanying Editorial View on page 165

## Temperature Monitoring and Perioperative Thermoregulation (Review Article) ..... 318

Perioperative temperature monitoring and the effects of anesthetic drugs on body temperature are reviewed.

## Reversal of Profound, High-dose Rocuronium-induced Neuromuscular Blockade by Sugammadex ..... 188

The efficacy and safety of sugammadex for the reversal of profound, high-dose rocuronium-induced neuromuscular blockade was evaluated. Patients were randomized to receive sugammadex (2, 4, 8, 12, or 16 mg/kg) or placebo at 3 or 15 min after high-dose rocuronium (1.0 or 1.2 mg/kg). The primary endpoint was time to recovery of the train-of-four ratio to 0.9. After 1.2 mg/kg rocuronium, 16 mg/kg sugammadex at 3 or 15 min decreased the time of recovery to 1.3 min and 1.9 min, respectively. Similar results were obtained after reversal of 1 mg/kg of rocuronium. Sugammadex provides a rapid and dose-dependent reversal of profound neuromuscular blockade induced by high-dose rocuronium in adult surgical patients.



## New Strategies to Detect Alcohol Use Disorders in the Preoperative Assessment Clinic ..... 171

Alcohol use disorders (AUDs) have enormous public health consequences; yet the rate of diagnosis of AUDs remains unsatisfactorily low. This study compared the detection of AUDs by anesthesiologists in a large preoperative assessment clinic to that by computerized self-assessment using the Alcohol Use Disorder Identification Test. Before the anesthesiologists' evaluation in the preoperative clinic, 1,556 patients were asked to complete the Alcohol Use Disorder Identification Test. The anesthesiologists were blinded to the results of the computer-based assessment. The prevalence rate of AUDs determined by the anesthesiologists was 6.9% (107/1556), whereas the proportion of patients positive for AUDs using the computerized Alcohol Use Disorder Identification Test was 18.1% (282/1556). Improved detection of AUDs is needed if improved compliance with treatment algorithms is to be achieved. See the accompanying Editorial View on page 169

## Regulation of Apoptotic and Inflammatory Cell Signaling in Cerebral Ischemia: Heat Shock Protein (Review Article) ..... 339

Heat shock proteins (HSP) are induced by specific types of stress, including heat. Heat shock proteins function within networks of interacting proteins; they can alter cellular physiology rapidly in response to stress. This review focuses on the HSP70 family and considers the functions of the inducible member, Hsp72, in the setting of cerebral ischemia. The HSP70 family inhibits apoptotic signaling at multiple points and upregulates survival signaling; thus, the HSP70 family has a net prosurvival effect. These proteins hold promise both as a therapeutic strategy and as biomarkers for severity of stress.

## Anesthetic Technique for Radical Prostatectomy Surgery Affects Cancer Recurrence ..... 180

Prostate cancer recurrence in patients who underwent open radical prostatectomy was evaluated in a retrospective review of medical records. Data from patients who received either general anesthesia with epidural anesthesia/analgesia or general anesthesia with postoperative opioid analgesia were compared. The endpoint was an increase in postoperative prostate specific antigen. The results were adjusted for tumor size, Gleason score, preoperative prostate specific antigen, margin, and date of surgery. The epidural plus general anesthesia group had an estimated 57% lower risk of recurrence compared with the general anesthesia plus opioids group. Results from this retrospective review suggest that prospective randomized trials to evaluate this association are warranted.