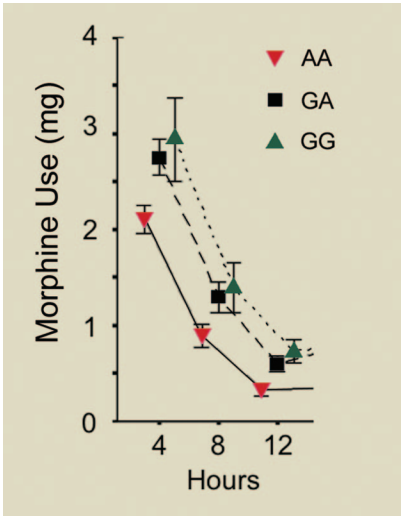
THIS MONTH IN *Anesthesiology*

We Care, Therefore We Are: Anesthesia-related Morbidity and Mortality—The 46th Rovenstine Lecture (Special Article). 377

The 2007 Rovenstine Lecture presented at the annual meeting of the American Society of Anesthesiologists.

A118G Single Nucleotide Polymorphism of Human μ-Opioid Receptor Gene Influences Pain Perception and Patient-controlled Intravenous Morphine Consumption after Intrathecal Morphine 520



This study investigated if polymorphisms at position 118 of the human μ-opioid receptor gene contribute to the variability in response to morphine for postcesarean analgesia. Five hundred eighty-eight women received 0.1 mg intrathecal morphine for postcesarean analgesia. They were genotyped for the A118G polymorphism—either A118 homozygous (AA), heterozygous (AG), or homozygous for the G allele (GG). The 24-h self-administered intravenous morphine consumption was lowest in AA group (5.9 mg) *versus* AG group (8.0 mg) and GG group (9.4 mg). Pain scores were lowest in AA group and highest in the GG group. The AA group was associated with the highest incidence of nausea.

Motor and Somatosensory Evoked Potentials Are Well Maintained in Patients Given Dexmedetomidine during Spine Surgery 417

Dexmedetomidine did not affect the latency or amplitude of sensory evoked potentials.

Intraoperative Acceleromyographic Monitoring Reduces the Risk of Residual Neuromuscular Blockade and Adverse Respiratory Events 389

Incomplete recovery from neuromuscular blockade in the postanesthesia care unit (PACU) may contribute to adverse postoperative respiratory events. This study determined the incidence and degree of residual neuromuscular blockade and adverse respiratory events in patients randomized to conventional qualitative train-of-four (TOF) monitoring or quantitative acceleromyographic monitoring. One hundred eighty-five patients were studied. Anesthetic management was standardized. A lower frequency of residual neuromuscular blockade in the PACU (TOF ratio ≤0.9) was observed in the acceleromyography group (4%) compared with the conventional TOF group (30%). The risk of adverse respiratory events during early recovery from anesthesia was also reduced by intraoperative acceleromyography use. *See the accompanying Editorial View on* **page 363**

Novel Ryanodine Receptor Mutation That May Cause Malignant Hyperthermia 457

A potential link between a new variant and susceptibility to malignant hyperthermia is investigated.

Transmission of Pathogenic Bacterial Organisms in the Anesthesia Work Area 399

Hospital-acquired infections and increasing prevalence of bacterial resistance are major public health concerns. A heightened awareness of intraoperative transmission of potentially pathogenic bacterial organisms may lead to effective preventative measures. Sixty-one operative suites were randomly selected for analyses. The primary outcome was the presence of a positive culture on a previously sterile patient stopcock set. Secondary outcomes were the number of colonies per surface area sampled on the anesthesia machine, species identification, and antibiotic susceptibility of isolated organisms. Transmission of bacterial organisms to intravenous stopcock sets occurred in 32% of cases. Highly contaminated work areas increased the odds of stopcock contamination by 4.7.

Guidance of Block Needle Insertion by Electrical Nerve Stimulation 473

Rigaud *et al.* examined whether lower intensity stimulation results in injection closer to the sciatic nerve than higher threshold stimulation in both normal and hyperglycemic dogs. During anesthesia, the sciatic nerve was approached with an insulated nerve block needle emitting either 1 mA (high-current group) or 0.5 mA (low-current group). After optimizing the positioning, the lowest current producing a response was identified, and ink (0.5 ml) was injected. Frozen sections of the tissue were evaluated. In normal dogs, the patterns of distribution using high-threshold (final current 0.99 mA) and low-threshold (final current 0.33 mA) stimulation showed ink that was in contact with the epineurium or distant to it. One location was intraneural. In hyperglycemic dogs, all needle insertions used a low-threshold technique (final threshold 0.35 mA) and all resulted in intraneural injections. Low-threshold electrical stimulation does not offer satisfactory protection against intraneural injection in the presence of hyperglycemia. *See the accompanying Editorial View on* **page 361**

Radiofrequency Applications to Dorsal Root Ganglia: A Literature Review (Review Article) 527

Literature on pain relief from radiofrequency currents to dorsal root ganglia is reviewed.