



Magnesium: Essentials for Anesthesiologists (Review Article) 971

The pharmacology, physiology, proposed indications, and clinical recommendations for magnesium use are reviewed.

Practice Advisory for the Prevention of Perioperative Peripheral Neuropathies: An Updated Report by the American Society of Anesthesiologists Task Force on Prevention of Perioperative Peripheral Neuropathies (Special Article) 741

Prevention of peripheral neuropathies and perioperative care are discussed.

Elevated Peak Postoperative B-type Natriuretic Peptide (BNP) Predicts Decreased Longer-term Physical Function after Primary Coronary Artery Bypass Graft (CABG) Surgery 807

Peak postoperative BNP was associated with worse physical function; perhaps therapies that reduce the peak BNP could improve function after CABG surgery.

Cardiopulmonary Bypass-associated Acute Kidney Injury (Clinical Concepts and Commentary) 964

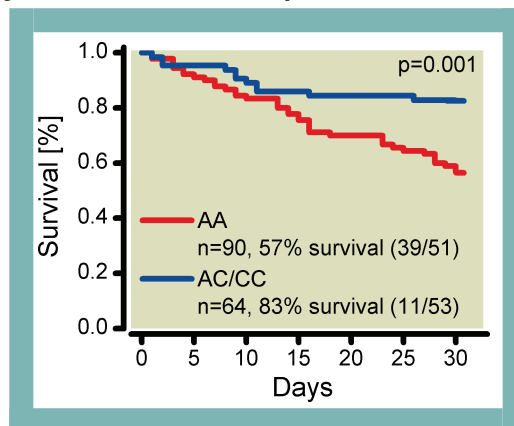
Definitions, pathophysiology, and risk factors for acute kidney injury are reviewed.

Cesarean Section Complicated by Rheumatic Mitral Stenosis (Case Scenario) 949

Peripartum management of a woman with cardiac disease is discussed.

Aquaporin 5 Gene Promoter-1364A/C Polymorphism Is Associated with 30-day Survival in Severe Sepsis 912

The aquaporin (AQP) 5 protein mediates key mechanisms for inflammation such as cell migration and proliferation, activity of the renin-angiotensin-aldosterone system, and the transport of water across biological membranes. Genetic variations may play a role in determining patient outcomes for severe sepsis. Therefore, this prospective study compared outcomes of patients (N = 154) with severe sepsis with the AQP5 promoter-1364A/C polymorphisms. Patients with the AQP5-1364 AC/CC (83%) genotypes demonstrated significantly improved 30-day survival compared with the AA (57%; $P = 0.001$) genotype. The AQP5-1364A/C polymorphism was an independent prognostic factor for 30-day survival.



Chronic β Blockade Is Associated with a Better Outcome after Elective Noncardiac Surgery than Acute β Blockade: A Single-center Propensity-matched Cohort Study 817

Current guidelines recommend administration of perioperative β blockers to patients at cardiac risk during noncardiac surgery. However, it is unclear if the risk associated with perioperative β blockade outweighs the benefit. The current single-center propensity-matched large cohort study compared the major acute cardiac outcomes in patients who received acute (n = 436) or chronic (n = 962) β blockade. Consecutive patients (N = 10,691) undergoing elective noncardiac surgery were included. Using propensity score matching, 301 patients were compared. Of those, a composite endpoint of myocardial infarction, nonfatal cardiac arrest, and perioperative mortality occurred more frequently in acute compared with chronic β -blocked patients (3% vs. 8%; $P = 0.011$). β blockade initiated within the first 2 days after surgery was associated with worse cardiac outcomes compared with patients who received chronic β blockade.

Cervical Spinal Cord, Root, and Bony Spine Injuries: A Closed Claims Analysis 782

Relatively little has been reported regarding potential causes of cervical spinal cord injuries after surgery and anesthesia. To learn more about this catastrophic complication, an analysis of the American Society of Anesthesiologists Closed Claims database was conducted. Independent teams of anesthesiologists and neurosurgeons reviewed the data from 1970 to 2007 to identify cervical injuries and propose probable contributors to injury. Of the 48 claims identified, cord injuries (n = 37) were more severe than root and/or bony spine injuries (n = 10) ($P < 0.001$), and typically resulted in quadriplegia. The majority of cord injuries occurred in the absence of traumatic injury (81%) or cervical spine instability (76%). Anatomic abnormalities (81%) were the predominant cause of injury. Overall, the incidence of cervical injury was rare and most occurred in the absence of traumatic injury, instability, or airway difficulties. See the accompanying Editorial View on page 729