ANESTHESIOLOGY

Electroencephalographic Indicators Evaluated as Monitors for Analgesia, Sedation. Schmidt et al. (page 707)

Schmidt et al. recruited 10 healthy male volunteers for their crossover double-blind study to investigate the effects of propofol, remifentanil, and placebo on nociception and sedation. The aim of the study was to evaluate the potential of somatosensory (SSEP) and intracutaneous pain evoked (iSEP) potentials as electroencephalographic indicators of nociceptive responses. Each of the three sessions included nine experimental periods (habituation, baseline, and seven treatment periods). After baseline recordings, drug concentrations were infused in a stepwise manner. Ten minutes after induction of the next higher dosage, the team administered painful stimuli to the median nerve and fingertip, and then obtained SSEP and iSEP recordings to measure brain activity. Participants rated their pain using a Visual Analogue Scale. A blinded observer assessed their sedation levels using a modified Observer’s Assessment of Alertness and Sedation Scale.

The electroencephalogram was recorded from 128 channels. Somatosensory evoked potential readings were averaged from 180 sweeps after median nerve stimulation (frequency 1 Hz) and iSEP from 40 sweeps after intracutaneous electrical stimulation of the fingertip (1 every 6 s). Correlation between changes in pain ratings, modified Observer’s Assessment of Alertness and Sedation Scale, SSEP, and iSEP from baseline was calculated. The authors found that remifentanil induced a strong analgesic effect without relevant sedation. Propofol caused profound sedation with only a moderate analgesic effect. Early SSEP components were not affected by medication. The amplitudes of the long latency SSEP components increased significantly under remifentanil, decreased under propofol, and showed no change with placebo. Further studies may help to clarify whether late SSEP components can be routinely used specifically to monitor the depth of analgesia during general anesthesia.

Fascia Iliaca Block versus Opioids for Relief of Acute Hip Fracture Pain. Foss et al. (page 773)

Traditionally, treatment for the severe pain of hip fracture in the emergency room has relied on systemic opioids. Because this method has the potential for serious side effects in the frail elderly—those most prone to hip fracture—Foss et al. designed a study to compare systemic opioids with regional analgesia using fascia iliaca compartment blockade (FICB). During a three-year study period, all patients arriving in the emergency room with clinical signs of primary hip fracture were screened for inclusion in this study. Study protocol called for emergency room staff to start nasal oxygen therapy, insert an intravenous line, begin fluid resuscitation, give 1 g of oral paracetamol, and summon study investigators who then completed the informed consent process for study enrollment.

In the group of patients randomly assigned to the FICB group, a block was performed using 1.0% mepivacaine with epinephrine, and an intramuscular injection of 0.9% saline was given in the contralateral gluteal region. In the group to receive morphine, participants received a sham block with 0.9% saline and an intramuscular injection of 5.0 mg/ml morphine. Thirty minutes after the “block” procedure (sham or real) patients were taken for x-rays. Upon confirmation of hip fracture, they were transferred to the postanesthesia care unit, where investigators assessed them at 30, 60, and 180 min after the block. Morphine was given intravenously if patients had a pain score of 5 or greater at rest on a 10-point verbal ranking scale. The study was terminated at 180 min after the “block” and patients subsequently underwent surgical hip fracture repair.

Block of all or part of the lumbar plexus was achieved in 67% of patients in the FICB group. These results were attributed to the fact that those performing the blocks were anesthesiologists in training. Nevertheless, maximum pain relief was superior in the FICB group both at rest and upon movement, and total morphine consumption was 0 mg, compared to 6 mg in the morphine group. The present data support the use of FICB in acute management of hip fracture pain.

Association between Anesthesiologists’ Gender and Income Explored. Weeks et al. (page 806)

Using data obtained during the 1990s by the American Medical Association, Weeks et al. explored associations between gender and annual incomes of white anesthesiologists. The yearly American Medical Association telephone survey had yielded responses from 1,000 white male and 138 white female anesthesiologists from 1992 to 2001. (Blacks and other racial group members were not included due to insufficient data.) The study authors...
excluded respondents who had not provided information on annual income, number of hours worked in the last week, number of weeks practiced in the last year, number of years in practice, or whether they offered Medicare services. They also excluded extreme outliers, such as those working less than 364 h or more than 4,291 h in the previous year, and those reporting annual incomes of less than $60,837 or more than $658,395 in 2004 dollars.

The above screening criteria yielded a total of 726 white male and 93 white female anesthesiologists whose survey data were available for analysis. The white female anesthesiologists reported working 12% fewer annual hours and had practiced medicine for fewer years than their white male counterparts. White female anesthesiologists were more likely to be employees as opposed to owners of practices, but less likely to be board certified. After adjusting for work effort, provider characteristics, and practice characteristics, the authors found that the annual income for white female anesthesiologists was 20% lower than for white male anesthesiologists. The study was limited by its reliance on data available from the American Medical Association survey, so additional efforts to elucidate the reasons for the income gap are warranted.

American Society of Anesthesiologists Unveils Updated Practice Guidelines for Obstetric Anesthesia. ASA Task Force (page 843)

In this issue, the American Society of Anesthesiologists Task Force on Obstetric Anesthesia publishes an update of Practice Guidelines on Obstetric Anesthesia. The last such update was published in 1998. The 11-member Task Force developed the current Guidelines using a seven-step process: reaching consensus on the criteria to be used for strength of evidence; reviewing research studies from peer-reviewed journals; employing expert panel consultants to generate opinions on peripartum management strategies; soliciting opinions from active members of the American Society of Anesthesiologists who provide obstetric anesthesia; holding open forums at two national meetings to solicit input on draft recommendations; surveying consultants on the feasibility of implementing the Guidelines; and using consensus-building within the Task Force to finalize the Guidelines.

The resulting document contains recommendations culled from 437 peer-reviewed journal articles that contained direct linkage-related evidence on peripartum management strategies. Anesthesiologists will find guidance and recommendations regarding proper conduct of perianesthetic evaluations, including focused history taking and physical exam, as well as establishment of a communication system ensuring ongoing contact between members of the multidisciplinary care team. The Practice Guidelines also furnish recommendations on aspiration prophylaxis, techniques and timing of neuraxial analgesia, early insertion of spinal or epidural catheter for complicated parturients, and patient-controlled epidural analgesia, among other components of anesthetic care during labor and delivery. The Task Force also includes discussion on anesthetic technique for removal of the retained placenta (there is no preferred anesthetic technique), anesthetic choices for cesarean delivery, anesthetic care for postpartum tubal ligation procedures, and management of obstetric and anesthetic emergencies. The survey concerning feasibility of implementation of these Guidelines yielded generally positive responses from consultants. Ninety-seven percent of respondents believed that implementing these Guidelines would have no effect on the amount of time spent on a typical case.

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