Preop Hydration Can Prevent Postop Delirium

BY SHERRY BOSCHERT
San Francisco Bureau

SAN FRANCISCO — A longer preoperative period without fluids led to a higher incidence of postoperative delirium in the recovery room, Dr. Finn M. Radtke reported in a poster presentation at the annual meeting of the American Society of Anesthesiologists.

In his study of 516 patients, 45 (9%) who later developed delirium went without fluids for a median of 12 hours before surgery, compared with 10 hours for the 471 patients without delirium, a statistically significant difference. Delirium after surgical procedures is associated with increased morbidity and mortality, said Dr. Radtke of Charité School of Medicine–Berlin and his associates.

"There's no reason that a patient shouldn't get clear fluids until 2 hours before an operation," Dr. Radtke said.

The study included adult patients who were moved to a recovery room after general anesthesia and surgery. It excluded patients who were undergoing neurosurgery or who had a history of psychiatric or immunologic illness. Nurses assessed patients in the recovery room using the Nursing Delirium Screening Scale, an observational five-item scale that can be completed within about a minute.

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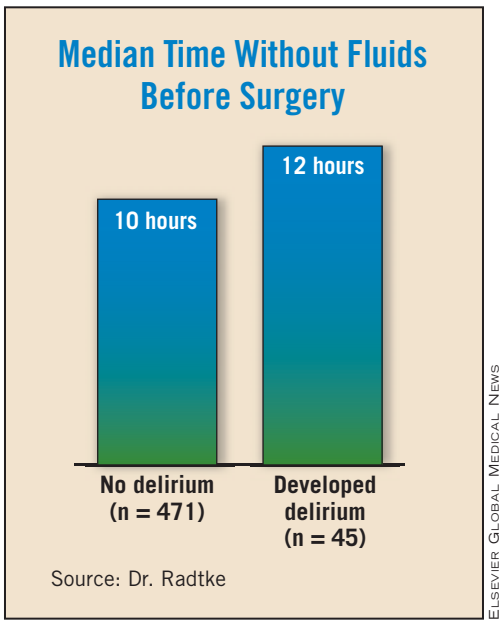
DR. RADTKE

In addition to preoperative fluid fasting, the duration of anesthesia was associated with delirium in the recovery room. Patients with delirium had a significantly longer duration of anesthesia (a median of 150 minutes), compared with nondelirious patients (120 minutes), he reported. Similarly, patients with delirium stayed a median of 5 minutes longer in the recovery room than did their counterparts, a statistically significant difference.

A physician in the audience at the poster presentation commented, "I expected to see an older population in the delirium group, but there wasn't [a significant age difference]." The median age in the delirium group was 58 years, compared with 53 years in those without delirium.

The study did not assess the depth of anesthesia experienced by patients, which could have played some role in the risk for postoperative delirium, Dr. Radtke said. He said his hospital performs approximately 90,000 operations each year. ■



ELSEVIER GLOBAL MEDICAL NEWS

For Venous Thromboembolism, Prophylaxis Falls Short Worldwide

BY NANCY WALSH
New York Bureau

More than half of hospitalized patients worldwide are at risk for venous thromboembolism, and despite the availability of evidence-based guidelines, the rate of appropriate prophylaxis remains low, a new study has found.

With pulmonary embolism accounting for 5%-10% of deaths among hospitalized patients, venous thromboembolism (VTE) remains the most common preventable cause of in-hospital death, investigators reported.

Dr. Alexander T. Cohen of King's College Hospital, London, and his colleagues enrolled 68,183 patients from 358 hospitals in 32 countries into the cross-sectional Epidemiologic International Day for the Evaluation of Patients at Risk for Venous Thromboembolism in the Acute Hospital Care Setting (ENDORSE) study.

Patients 40 years and older being treated in medical wards and those 18 years and older being treated on general surgical wards were assessed by chart review for risk for VTE according to the 2004 American College of Chest Physicians (ACCP) guidelines.

Among the 37,356 medical patients, 49% were women; the median age was 67 years. Among the 30,827 surgical patients, 48% were women; the median age was 59 years.

The researchers found that 15,487 medical patients (42%) were at risk for VTE, with the most common risk factors present before hospitalization being chronic pulmonary disease and heart failure. They identified 19,842 surgical patients (64%) who were at risk, with obesity being the most common prehospitalization risk factor.

The most common postadmission risk factors among both medical and surgical patients were complete immobilization, immobilization with bathroom privileges, and admission to intensive or critical care units. Overall, 35,329 (52%) were at risk.

Further analysis determined that only half of these at-risk patients (17,732) received ACCP-recommended types of prophylaxis, which include low-dose unfractionated heparin, low-molecular-weight heparin, graduated compression stockings, and/or intermittent pneumatic compression devices. When prophylaxis was given, low-molecular-weight heparin was the agent most often used.

Not only was prophylaxis underused in at-risk patients, but the investigators also found that 34% of surgical patients and 29% of medical patients considered at low risk for VTE were given prophylaxis (Lancet 2008;371:387-94).

Overall, the proportion of hospital patients at risk for VTE ranged from 36% to 73% and the proportion of patients receiving ACCP-recommended prophylaxis ranged from 2% to 84%, the investigators reported.

These differences could reflect factors such as physician awareness, availability of guidelines, and local resources. In the United States, 48% of at-risk medical patients and 71% of at-risk surgical patients received recommended prophylaxis, while in Thailand the corresponding figures were 4% and 0.2%.

They also noted that the use of prophylaxis was particularly low among medical patients, with only 37% of those hospitalized with active malignancy or ischemic stroke—among the highest-risk groups—receiving recommended prophylaxis.

In an editorial, Dr. Walter Ageno and Dr. Francesco Dentali of the University of Insubria, Varese, Italy, noted that local programs such as electronic alerts for clinicians are effective and should be promoted. But before such tools can be effectively implemented, the prevalence of the problem must be more broadly appreciated and disagreements about benefits and risks resolved.

"Different perceptions of the benefit-to-risk ratio of pharmacological prophylaxis exist between ischaemic stroke specialists, and some stroke guidelines do not recommend routine use of pharmacologic prevention strategies." Guidelines should be more comprehensively endorsed among medical and surgical societies, they wrote (Lancet 2008;371:361-2). ■

Lidocaine, Nicotine Patches Can Reduce Postoperative Pain

BY SHERRY BOSCHERT
San Francisco Bureau

SAN FRANCISCO — Placing a nicotine patch behind a patient's ear before radical retropubic prostatectomy or placing lidocaine patches on each side of the surgical wound could reduce postoperative pain or narcotic use, results of two studies suggest.

The lidocaine patch significantly reduced pain after surgery, and the nicotine patch significantly reduced cumulative morphine consumption 24 hours after surgery, Dr. Ashraf S. Habib and associates reported in two separate poster presentations at the annual meeting of the American Society of Anesthesiologists (ASA).

Both prospective, randomized, double-blind, placebo-controlled studies of patients undergoing radical retropubic prostatectomy used standardized postoperative analgesia via patient-controlled morphine administration and six hourly 15-mg IV doses of ketorolac.

In what may be the first reported study of the treatment of acute postoperative pain with 5% lidocaine patches, surgeons placed a patch on either side of the wound at the end of surgery on 36 patients and a placebo patch on 34 patients. The two groups were similar in age, height, weight, ASA class, length of surgery, and amount of intraoperative opiates received.

Postoperative pain scores on coughing were significantly lower in the lidocaine group than in the placebo group in the postanesthesia care unit (PACU) and at 6, 12, and 24 hours post surgery, after investigators accounted for a significant effect of morphine. Pain scores at rest were significantly lower in the lidocaine group than in the placebo group up to 6 hours after surgery, and were not significantly different at 12 and 24 hours, said Dr. Habib, director of quality improvement at Duke University Medical Center, Durham, N.C.

The nicotine group used 33 mg of morphine, significantly less than the 45 mg used by the placebo group.

DR. HABIB

There were no significant differences between groups in cumulative morphine consumption or in duration of stay in the PACU or in the hospital.

In the other study, a 7-mg nicotine patch was applied behind the ear of 44 patients 30-60 minutes before anesthesia induction, and a placebo patch behind the ear of 46 patients. By 24 hours after surgery, patients in the nicotine group had used a mean of 33 mg of morphine, significantly less than the mean 45 mg used by the placebo group, Dr. Habib said.

There were no significant differences between groups at any time points in pain scores on coughing or at rest, or in incidence of nausea and vomiting.

There were significant negative correlations between serum nicotine levels at 4 hours and cumulative morphine consumption at 24 hours, and between serum nicotine levels at 24 hours and morphine consumption at all time points (in the PACU and at 6, 12, and 24 hours after surgery).

Dr. Habib has no association with the companies that make the lidocaine or nicotine patches. ■