Drug Monitor

Lidocaine Lessens Tube Insertion Pain

Patients and clinicians agree: nasogastric tube insertion is painful. But now that we have topical anesthesia, why not use it?

In a double-blind, placebo-controlled trial, researchers from Royal Brisbane and Women's Hospital in Brisbane and Royal Melbourne Hospital and Austin Hospital in Melbourne, Australia found that 29 patients given nebulized lidocaine had significantly lower mean pain scores than 21 given nebulized normal saline (37.7 versus 59.3 on a visual analog scale).

There was no detectable difference in the difficulty of tube insertion—though five lidocaine patients had nosebleeds. The researchers say this is likely due to the relative insensitivity of the anesthetized turbinates (rather than a direct effect of lidocaine), and they suggest adding a vasoconstrictor.

One patient receiving lidocaine developed dyspnea and chest tightness, which resolved upon drug discontinuation. According to the researchers, this is the first report of such an adverse event occurring in a patient with no history of respiratory disease.

Source: *Ann Emerg Med*. 2004;44:131–137.

Bicalutamide Benefits in Prostate Cancer

Androgen deprivation therapy is the standard treatment for advanced prostate cancer, but by decreasing serum androgen levels, gonadotropin-releasing hormone agonists (such as leuprolide) reduce bone mineral density (BMD), decrease lean body mass, and increase fat mass—which contribute to fall risk and diminished quality of life. By contrast, the nonsteroidal antiandrogen bicalutamide binds competitively to receptor sites in target tissue, thus increasing serum androgen levels.

Researchers from Massachusetts General Hospital, Boston compared monotherapy with oral bicalutamide or IM leuprolide in 51 men with prostate cancer and no bone metastasis in a 12-month, open-label study. As expected, bicalutamide increased mean serum testosterone and estradiol levels by 97% and 146%, respectively, while leuprolide reduced them by 96% and 77%, respectively.

Mean lumbar spine and total hip BMD increased by 2.5% and 1.1%, respectively, in the bicalutamide patients and decreased by 2.5% and 1.4%, respectively, in the leuprolide patients. Fat mass increased in both groups, but the change was significantly smaller in the bicalutamide group (6.4% versus 11.1%). Changes in lean body mass and lower extremity strength also tended to be smaller with bicalutamide. Compared with leuprolide, bicalutamide caused less anemia, fatigue, vasomotor flushing, and loss of sexual interest—but more breast enlargement and tenderness.

Bicalutamide monotherapy is approved to treat prostate cancer in 55 countries—but not the United States, where the drug is indicated only as an adjunctive therapy. The researchers call for larger and longer-term studies to clarify the effect of bicalutamide monotherapy on fracture risk in patients with prostate cancer.

Source: *J Clin Oncol*. 2004; 22:2546–2553.

Watch Blood Glucose After Thrombolysis

High blood glucose and intracranial hemorrhage are independent predictors of hyperacute worsening in patients who receive thrombolytic therapy (TT) for acute ischemic stroke, say researchers from the University Hospitals of Cleveland and Case Western Reserve University, Cleveland, OH. In their study of 201 patients treated with TT, 13% worsened, 39% improved, and 48% were unchanged 24 hours after treatment initiation. In-hospital mortality was 16%. None of the patients whose National Institutes of Health stroke scale score decreased died, compared with 73% of those whose score increased. Deterioration was significantly more likely to occur in patients with hyperglycemia (blood glucose above 150 mg/dL), even in the presence of recanalization. The findings support earlier research that has found hyperglycemia worsens the outcome after stroke. ●

Source: *Stroke*. 2004; 35:1903–1907.