Head Injury Mortality Cut by 70%

Trauma *from page 1*

Scale (AIS) of 3 or greater and β-blocker exposure of at least 2 days who were admitted from January 2004 to March 2005.

Only patients with a head AIS attributable to traumatic brain injury were included. Pediatric patients were excluded, as were patients who were not managed by the trauma team or whose length of stay was less than 4 days or greater than 30 days.

About 1,200 patients met the inclusion criteria. After exclusions, Dr. Cotton and his colleagues evaluated 420 patients, of whom 173 had β-blocker exposure and 247 did not. There were no significant differences between the two groups, although those exposed to β-blockers did tend to be older, with a mean age of 50, compared with 36 for the unexposed group, he said.

Five percent of the patients who received β-blockers died—a 70% reduction in mortality, compared with the unexposed group after adjusting for age, sex, and injury severity scores, he said. The β-blocker patients did have higher rates of infection—38% vs. 21%—and respiratory complications—70% vs. 47%. And at 11 days, their average length of stay was 4 days longer than for the unexposed group.

But β-blocker exposure was strongly associated with a protective effect, Dr. Cotton said.

Propanolol was the most commonly used β-blocker in both studies, although Dr. Arbabi said that metoprolol would likely be his preference.

Neither institution is using β-blockers under any protocols for head injury patients. Both Dr. Arbabi and Dr. Cotton said that their hypotheses should be confirmed by randomized, prospective studies before physicians proceed with regular use of β-blockers.

In discussing the papers, Dr. Blaine L. Enderson of the University of Tennessee Medical Center, Knoxville, said, "These papers are some of the most exciting of this meeting because of the future avenues of research they present and the potential therapeutic benefit they offer."

Dr. Enderson agreed that there were many unanswered questions, including which patients should be given the drugs and at what point after injury. ■

Emergency Docs Interpret Most CTs Correctly

HALIFAX, N.S. — Emergency physicians don't miss many clinically significant findings on computerized axial tomography scans of the head.

Neuroradiologists agreed with the CT interpretations made by emergency department physicians almost all of the time, Dr. Abdullah Al-Reesi reported in a poster presented at the 11th International Conference on Emergency Medicine.

Dr. Al-Reesi, of the University of Ottawa, reviewed 442 consecutive CT head scans done in an emergency department over a 5-month period, comparing the interpretations done by both groups of physicians.

Indications for CT were head injury, headache, seizure, confusion, decreased consciousness, cerebrovascular accident, transient ischemic attack, and dizziness.

ED physicians missed three clinically significant lesions: two nontraumatic and one traumatic subarachnoid hemorrhages. They also missed six clinically nonsignificant findings, which included one small (less than 5 mm) cerebral contusion, three cases of fluid in the sinuses, one small lacunar infarct, and one patchy hypodensity later identified as a multiple sclerosis lesion. A patient with an intraventricular hemorrhage was discharged home. Once the error was recognized, he was referred for emergency neurosurgical consult.

—Michele G. Sullivan