

Intracolonic Vancomycin Adds to *C. difficile* Therapy

BY MITCHEL L. ZOLER

LAS VEGAS — Intracolonic administration of vancomycin, given by retention enemas, was an effective adjunct to conventional oral and intravenous antibiotic therapy in patients with severe, fulminant *Clostridium difficile* colitis.

In a series of 47 consecutive patients treated at a U.S. center from January 2007 to October 2009, 37 (79%) survived and 33 (70%) had complete resolution of the colitis, Dr. Peter K. Kim and his associates reported in a poster at the annual meeting of the Surgical Infection Society.

"Intracolonic vancomycin may have an important role in the management of severe *C. difficile* colitis as an adjunct to oral vancomycin and intravenous metronidazole. It may decrease the need for colectomy and improve mortality when used in addition to standard therapy," Dr. Kim and his associates said in their poster.

The 79% survival rate was better than the rates of about 25%-50% in similar patients with severe *C. difficile* colitis before

the intracolonic approach was adopted in 2007, Dr. Kim said in an interview.

No patient receiving intracolonic vancomycin had an adverse event linked to the treatment, said Dr. Kim, a surgeon at Jacobi Medical Center and Albert Einstein College of Medicine, both in New York.

Patients who responded to intracolonic vancomycin had improvement within 48 hours of starting treatment. Responders generally did not require surgery, which is advantageous because patients who need surgery often subsequently die.

The 47 patients had a mean age of 65, and 62% were women. Their mean APACHE (Acute Physiology and Chronic Health Evaluation) II score was 23, with a range of 14-47. Most were nursing home residents prior to hospitalization.

Patients received a conventional antibiotic regimen for *C. difficile* of oral vancomycin and intravenous metronidazole, as well as the adjunctive intracolonic vancomycin (1 g delivered in 500 cc normal saline, given an enema that patients held for 15 minutes, administered every 6

hours). Patients received intracolonic vancomycin for an average of 6.6 days.

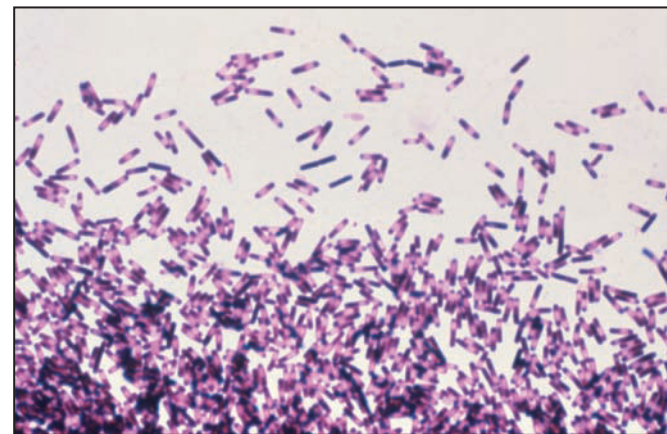
The 33 patients with complete resolution had total elimination of their colitis by the time the intracolonic and conventional regimens had been completed. None of these 33 patients required surgery; 30 survived and 3 died.

The 14 patients with incomplete resolution had either no response or a partial response, and continued to show features of colitis such as persistent diarrhea; abdominal distention, tenderness, or pain; or persistent pancolitis on CT. Nine of the 14 nonresponders underwent colectomy. Seven of the surgery patients survived, and two died. All five pa-

tients without complete resolution who did not have surgery died.

The researchers based the dosage of vancomycin on prior reports. A few other U.S. surgical programs currently also use this treatment, they said. ■

Disclosures: Dr. Kim and his associates had no relevant disclosures.



Adding intracolonic vancomycin increased the survival rate to 79% vs. 25%-50% with standard therapy alone.

Obese Patients' Surgical Risks May Carry P4P Impact

VITALS

Major Finding: The complication rate for cholecystectomy was 21% for obese patients and 16.5% for nonobese. For appendectomy, the complication rate was 21% for obese patients and 18.8% for nonobese patients.

Data Source: A review of the insurance claims of 36,483 patients included in seven Blue Cross/Blue Shield databases.

Disclosures: None reported.

BY MICHELE G. SULLIVAN

NEW ORLEANS — Obese patients have a significantly increased risk of complications after cholecystectomy and appendectomy, which drives up the costs of these common procedures.

Because insurance companies are footing the bill, any move to institute pay-for-performance policies could work against obese patients, Dr. Kenzo Hirose said at the annual Digestive Disease Week.

If pay-for-performance is adopted based on outcomes, providers would be paid less for patients at risk of complications, said Dr. Hirose of Johns Hopkins Hospital, Baltimore. "Hospitals that have a higher burden of patients at a high risk of obesity—blacks, Hispanics, inner-city patients, and those at a lower socioeconomic status—could actually end up being penalized for caring for them."

Dr. Hirose and his colleagues reviewed insurance claims for cholecystectomy and appendicitis in seven Blue Cross/Blue Shield databases for the period 2002-2006. For each procedure, they compared 30-day complication rates and total direct medical costs for inpatient surgery.

Cholecystectomy for cholecystitis was performed on 31,028 patients, and an-

other 5,455 patients underwent appendectomy for acute appendicitis. For both procedures, obese patients had a significantly greater complication rate and significantly higher costs than did nonobese patients.

The mean complication rate for cholecystectomy was 21% for obese patients and 16.5% for nonobese. The mean cost was \$2,000 less in nonobese patients (\$16,992 vs. \$18,653).

For appendectomy, the mean complication rate was 21% for obese patients and 18.8% for nonobese patients. The mean cost was \$1,220 more for obese patients (\$15,400 vs. \$14,180).



Surgical site infections constituted most of the complications.

DR. HIROSE

Surgical site infections constituted most of the complications. The differences in complication rates remained significant even after the researchers controlled for diabetes, hypertension, dyslipidemia, and obstructive sleep apnea.

"What sounds good in theory turns out in reality to punish doctors who take care of more high-risk patients and actually financially incentivizes discrimination," lead study author Dr. Martin Makary said in a statement. ■

Acute Pancreatitis Patients Receive High Radiation Doses

BY DENISE NAPOLI

Radiation exposure from CT scans for the diagnosis of acute pancreatitis is significant, even though the condition is often easily diagnosed with laboratory tests, Dr. Desiree E. Morgan and her colleagues reported.

Dr. Morgan of the department of radiology at the University of Alabama at Birmingham and her colleagues looked at 869 patients who had 1,036 admissions for acute pancreatitis between October 2001 and September 2006 (mean age 51 years; 65% women). The most common etiologies included gallstones (32%) and alcohol abuse (23%).

Most patients (746 of 869) had a single hospital admission with a mean stay of 9.4 days. Those with multiple stays had a mean of 2.5 stays and 15.9 days.

Of 869 patients, 566 (65%) had at least one abdominopelvic CT scan. A total of 220 patients underwent one CT scan, 135 patients had two, and 211 received three or more.

"Patients with [Balthazar CT severity] grades A-C had mean total effective radiation dose estimated at 43.4 mSv ... which was less than those with grades D-E," who had a mean of 77.8 mSv, they wrote (Clin. Gastroenterol. Hepatol. 2010;8:303-8).

There was no correlation between CT scans and patient age. Indeed, a grade A patient aged 30 years or younger had a higher mean effective radiation dose estimate (34.38 mSv) than did a patient older than 70 years (33.78 mSv). The same pattern was seen in grade E patients (68.82 mSv vs. 57.91 mSv).

"Since the impact of radiation dose

on cancer risk is greatest in young patients and less significant in older patients, we are alarmed that there was no attempt to limit exposure by employing alternate imaging strategies in our younger patients with severe pancreatitis," they said. These might include "educating referring physicians about imaging utilization" and "performing single phase rather than multiphasic exams."

Abdominal imaging using newer MRI units capable of breathing-independent MRI sequences and more rapid examinations also may be a valid alternative to CT, they added.

Dr. Morgan conceded several limitations to the study, including the fact that "individual patients' radiation exposure estimate was calculated using published average CT effective dose estimates rather than true measurement at the time of scanning." However, "because our calculations did not take into account CT scans of other body regions in our patients or CTs obtained elsewhere ... we have likely underestimated exposure," she added.

"In the U.S., the average person receives an effective dose of about 3 mSv per year from naturally occurring radioactive materials and radiation from space. A typical CT scan produces the equivalent of more than 3 years of natural, background radiation," the authors noted. "Discussion ... regarding the merits and appropriateness of additional CTs in younger acute pancreatitis patients should be a priority." ■

Disclosures: Dr. Morgan and her colleagues reported no relevant conflicts of interest.