Community MRSA Linked to Deep Infections

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SAN FRANCISCO — Invasive methicillin-resistant *Staphylococcus aureus* was more likely to cause skin and soft tissue disease or joint infections if acquired in the community rather than in a hospital, according to preliminary data from a large surveillance study.

Skin or soft tissue infection occurred in 34% of community-associated methicillin-resistant *S. aureus* (MRSA), compared with 10% of hospital-associated MRSA infections in the study of 6,413 cases of invasive MRSA in nine U.S. sites with a total population of about 16 million people, Dr. Susan M. Ray reported at the annual meeting of the Infectious Diseases Society of America.

Endocarditis was more common among patients with community-associated MRSA than among patients with hospital-associated MRSA (12% vs. 4%), as were internal or deep-seated abscesses (9% vs. 4%) and septic arthritis, said Dr. Ray of Emory University, Atlanta.

"These differences may be explained by virulence factors in the staph strain, and/or by delay in presentation for care," Dr. Ray said. "The clinical evaluation of community-associated MRSA should include the investigation of deep-seated foci of infections."

Patients who had hospital-associated invasive MRSA were more likely than other patients to have uncomplicated bacteremia, she said.

A previous analysis of 2001-2002 data from the Centers for Disease Control and Prevention revealed that about 17% of cases of MRSA in three sites were community associated, and about 7% of these were invasive disease (with a culture from a normally sterile site).

The current study analyzed federal data from 2004 and 2005 in nine geographic areas to identify culture-positive invasive

Valganciclovir Cut Oral Shedding of Herpesvirus 8

SAN FRANCISCO — The first randomized, controlled clinical study of an antiviral medication's effects on human herpesvirus 8 found a 79% reduction in viral shedding in the oropharynx of 26 men taking 900 mg/day of valganciclovir, Dr. Corey Casper reported.

Human herpesvirus 8 (HHV-8) causes Kaposi's sarcoma, multicentric Castleman disease, and primary effusion lymphoma. The virus must actively replicate to cause and maintain Kaposi's sarcoma and multicentric Castleman disease. The study's results suggest that valganciclovir may be an effective and safe way to both prevent and treat these HHV-8–related diseases, he said at the annual meeting of the Infectious Diseases Society of America.

Sixteen of the 26 participants had HIV infection. Subjects were randomized to 8 weeks of oral valganciclovir or placebo, followed by a 2-week washout period. Then participants took the alternative treatment for an additional 8 weeks.

All 26 subjects completed the study, and all but 1 adhered to the study regimen, according to pill counts. Participants collected oropharyngeal secretions daily at home.

While patients were taking valganciclovir, the median percentage of days with HHV-8 DNA detected decreased to 9%, compared with 43% on placebo—a 79% reduction, said Dr. Casper of the University of Washington, Seattle.

The effect was seen regardless of HIV status. The median shedding rate decreased from 63% to 23% in HIV-positive men and from 15% to 5% in HIV-negative men, a 64% drop in each subgroup. The greatest suppression in viral shedding was seen at 2 weeks, after which the effect remained stable until the drug was stopped. Shedding rates returned to baseline levels within 1 week of stopping valganciclovir.

The study was funded by Roche Laboratories Inc., which makes valganciclovir, and the National Institutes of Health.

Seven men on valganciclovir and four on placebo developed diarrhea—the only significant difference in side effects observed between the groups.

It's not yet known whether a different dose of valganciclovir, or another antiviral medication, might more effectively limit HHV-8 replication, he said.

—Sherry Boschert

MRSA infections. Surveillance officers reviewed patient records to classify 86% of the cases as hospital-associated based on risk-factor criteria; all of the others were deemed community-associated infections (14%) or uncertain (less than 0.5%), Dr. Ray said.

The rate of community-associated MRSA varied widely by geography, comprising 24% of the invasive MRSA cases in Maryland but only 3% of the cases in New York.

Compared with hospital-associated invasive MRSA, community-associated MRSA occurred at higher rates among children, smokers, and men who had a history of intravenous drug use, HIV, or AIDS.

Compared with hospital-associated MRSA, community-associated MRSA was less likely to be resistant to antimicrobials other than methicillin or to be resistant to multiple classes of antibiotics, Dr. Ray reported.

Community-associated MRSA accounted for 35% of cases of invasive MRSA in children aged 3 years or younger, 50% of cases in 4- to 19-year-olds, 25% of patients aged 20-49 years, and 7% of those aged 50 years or older.

Cases were defined as hospital-associated MRSA if records showed at least one of the following criteria: previous MRSA colonization or infection; a culture obtained more than 48 hours after hospitalization; the presence of an invasive device at the time of evaluation; or a history within the past year of hospitalization, surgery, dialysis, or residence in a long-term care facility.

Investigators in the study began collecting isolates from a sample of cases in 2005.

"In the future, this will allow us to compare the epidemiologic classification of community-associated MRSA with its microbiologic characteristics," Dr. Ray said. ■

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