



FIGURE. Cases by week of onset.

symptoms such as a runny nose and sore throat, but had neither a fever nor conjunctivitis. She tested positive for adenovirus type 7 by the neutralizing test ($\times 16$) 6 months after the outbreak.

This outbreak reminds us that adenovirus type 7 infection is potentially fatal in this kind of population, and preventive measures are needed. The results of serological examination suggest that most Japanese adults are not immune to the virus and can contract mild symptoms and become an epicenter of outbreaks.

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Vancomycin-Resistant *Enterococcus* Stool-Culture-Positive Patients at Charleston Area Medical Center, West Virginia, 1997 to 1999

To the Editor:

To determine the rate of diarrhea in patients with vancomycin-resistant *Enterococcus* (VRE)-positive stool cultures (which is unclear at the present time)¹ and the extent to which VRE stool-positive patients have risk factors or clinical manifestations associated with coinfection with *Strongyloides*,² an investigation was undertaken of the current number of VRE cases and the clinical presentation of such cases at Charleston Area Medical Center (CAMC), the largest medical center in the state of West Virginia.

Available CAMC epidemiology records, laboratory logbooks, and inpatient records of hospitalized adult patients between 1997 and early 1999 were reviewed to identify cases with stool cultures positive for VRE, plus

an equal number of controls with stool cultures positive for other pathogens. CAMC laboratory logbooks document the results of ova and parasite examination of stool or sputum specimens requested by physicians. These specimens were processed by concentration techniques, followed by examination of an iodine-stained smear.

We identified 12 patients with stool cultures positive for VRE, 7 (58%) of whom had diarrhea. None of the VRE or control patients had serum samples taken for testing for antibody to human immunodeficiency virus, human T-cell lymphotropic virus, or *Strongyloides*. None of the patients were found to be infected with both VRE and a pathogen of the control group (*Salmonella*, *Campylobacter jejuni*, and methicillin-resistant *Staphylococcus aureus*), and none were noted to have stool samples testing positive for *Clostridium difficile* toxin.

No statistically significant differences between the VRE-positive and control groups were found for age, income, gender, or the presence of diabetes mellitus, allergy to penicillin or cephalosporin drugs, or infiltrates or effusions noted on chest radiograph. Factors for which there were statistically significant differences included (1) prior antibiotic use within the preceding 3 months (100% of the VRE cases vs 17% of the controls; $P=.00003$, Pearson chi-square test); (2) acute or chronic renal failure (75% of the VRE cases vs none of the controls; $P=.00034$, two-tailed Fisher's Exact Test); and (3) the presence of diarrhea or abdominal symptoms (58% of the VRE cases vs 100% of the controls; $P=.037$, two-tailed Fisher's Exact Test). Although the presence of eosinophilia (at least 500 eosinophils/mm³ peripheral blood prior to, or at the time of, VRE culture) did not differ significantly between the two groups overall (33% of the VRE cases vs none of the controls; $P=.09$, two-tailed Fisher's Exact Test), the difference was statistically significant when consideration was restricted to those cases with diarrhea or abdominal symptoms: eosinophilia was present in 57% of the VRE cases with such symptoms versus none of the controls with such symptoms ($P=.009$, two-tailed Fisher's Exact Test).

These results are preliminary, are based on small sample sizes, and may be explained by chance or confounding factors, but they are consistent with the hypothesis that at least some CAMC VRE stool-positive patients may be coinfecting with *Strongyloides*.^{2,4} Supporting this hypothesis are (1) an apparent association between eosinophilia (a common clinical manifestation of strongyloidiasis) and VRE among those patients with diarrhea and (2) the clinical profile of the four VRE patients with diarrhea and eosinophilia (mostly older Appalachian men with immunocompromising diseases, one of whom tested positive for *Strongyloides* by stool examination). If eosinophilia in the VRE group were due to drug allergy, one would expect it to be widespread in that group rather than limited to patients with diarrhea. If the strongy-

loidiasis hypothesis is true, the rate of diarrhea attributable to VRE itself may be less than the 58% figure cited above.

Because *Strongyloides*-positive patients with renal failure may have diarrhea resulting in dialysis-associated hypotension, and the hypotension may be attributed to bacterial infection, and because satisfactory blood levels of vancomycin can be achieved by infrequent administration in patients with kidney failure, many such patients at CAMC are given multiple courses of vancomycin. Repeated administration of vancomycin (or other anti-infective pharmaceuticals) may encourage the emergence of VRE. Complicating this scenario is the fact that it may take multiple stool examinations to detect *Strongyloides* larvae, which may be infrequently found in stool samples from infected persons.

REFERENCES

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Editor Accepts New Position

Effective September 1, 2000, Michael D. Decker, MD, MPH, Editor in Chief of *Infection Control and Hospital Epidemiology*, will leave Vanderbilt University to become Vice President, Scientific and Medical Affairs, at Aventis Pasteur Vaccines,

Swiftwater, Pennsylvania. In light of his new duties, Dr. Decker has asked the Publications Committee to begin a search for a new editor. Until a new editor is appointed and ready to take full editorial responsibility (likely in the first quarter of 2001), Dr. Decker

and the present editorial office staff will continue with their duties.

For further information regarding the position as editor, contact Dr. John Sellick, Chair of the Publications Committee, or the SHEA office.