CORRESPONDENCE

An Escherichia coli O157:H7 Outbreak?

SIR—Friedman et al. [1] describe an outbreak of hemolytic uremic syndrome and bloody diarrhea, which they ascribe to an inadequately maintained swimming pool. They consider the causative pathogen to be enterohemorrhagic Escherichia coli (EHEC) O157:H7 on the basis of isolating the organism from 1 case only and some serological evidence from 17 (59%) of 29 cases. In only 2 cases was E. coli O157: H7 sought by use of the Sorbitol MacConkey (SMAC) agar.

We consider that for an outbreak of infection in at least 29 people, a single isolation of the pathogen is inadequate to ascribe the whole outbreak to it. An inadequately maintained swimming pool in a rural area, such as the one Freidman et al. describe, is likely to contain many E. coli, including a variety of serotypes of EHEC, which would not be detected by SMAC agar. The prevalence of antibodies to the O157 antigen of E. coli in healthy individuals in rural communities in Canada has been found to be as high as 12.5% [2]. Unless serological tests and/or cultures for other EHEC are performed, we consider it inappropriate to ascribe an outbreak to a single EHEC serotype, such as O157: H7. We have shown that if SMAC agar alone had been used to test patients infected in a recent outbreak that was due predominantly to EHEC O111:H--., the outbreak could have been erroneously ascribed to EHEC O157:H7 [3].

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References

Reply

SIR—We appreciate Drs. Bettelheim and Goldwater pointing out that Escherichia coli O157:H7 is not the only E. coli serotype that can cause bloody diarrhea and hemolytic uremic syndrome [1]. As they stated in their 1996 letter to the editor [2], investigators should look for all enterohemorrhagic E. coli (EHEC) in these settings. However, our investigation was conducted >3 weeks after the pool party, so we did not attempt to perform stool cultures and had to rely on serology to determine whether the illnesses were related to the single culture-proven secondary case. It is theoretically possible but highly unlikely that the single person cultured early and appropriately had an E. coli O157:H7 infection, whereas other pool party attendees had infections caused by other EHEC serotypes. E. coli O157 infections (0.85 reported infections/100,000 population/year in 1997–1998) are unusual in Georgia, despite active statewide laboratory-based surveillance.

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Aspergillus: An Increasing Problem in Tertiary Care Hospitals?

SIR—we analyzed the microbiologic laboratory data regarding isolation of Aspergillus species from clinical specimens of patients hospitalized at the Detroit Medical Center from 1994 through 1998, and identified a steady increase in the number of Aspergillus isolates recovered (figure 1). Duplicate isolates from the same patients were few (<5%). Of the 423 isolates, 284 (66%) were Aspergillus fumigatus. Common non-fumigatus species were Aspergillus flavus and Aspergillus niger. The isolates included those that caused disease as well as colonizers and contaminant. Mere presence of Aspergillus species in clinical specimens does not imply invasive disease. Invasion must, however, be strongly suspected in certain settings such as neutropenia and bone marrow transplantation [1, 2]. Most source patients were immunocompromised children and adults (i.e., cancer patients, marrow trans-
Figure 1. Aspergillus species isolates from patients hospitalized at the Detroit Medical Center, 1994–1998. Solid bars, Aspergillus fumigatus; open bars, non-fumigatus aspergillus.

Our data suggest that the incidence of aspergillosis may be on the rise at our medical center. A large retrospective study of aspergillosis conducted at a transplant center has observed a similar trend [3]. There may be several reasons for this increase: an increase in the number of immunocompromised hosts in the hospital setting, a heightened awareness of aspergillosis among clinicians that causes them to perform more fungal diagnostic tests and so detect fungal infections more often in clinical specimens, better fungal isolation techniques in the laboratory, and/or an increase in the number of building construction sites around hospitals. Another contributing factor may be the recent availability of triazoles (e.g., fluconazole) for better treatment of and prophylaxis for candidal infections.

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African Trypanosomiasis

SIR—Sinha et al. [1] have provided an excellent review of African trypanosomiasis in travelers from the United States. Their review purports to represent “all or nearly all” of the US clinical experience with East African trypanosomiasis in the past 30 years. However, their series does not include a case of fulminant East African trypanosomiasis that we had reported in conjunction with the Centers for Disease Control and Prevention (CDC) in 1989 [2].

Our patient, a previously healthy 58-year-old woman, presented with fever 10 days after sustaining a tsetse fly bite while on a photographic safari in Rwanda. This case was complicated by adult respiratory distress syndrome, cardiac arrhythmias, thrombocytopenia, lactic acidosis, and hepatic and renal failure, but ultimately responded to treatment with suramin. In addition, spurious hypoglycemia, apparently related to in vitro metabolism of glucose by high concentrations of trypanosomes in initial blood specimens, was demonstrated. This phenomenon had not been reported previously in trypanosomiasis, although in our report we referenced another case acquired in 1983 in which, retrospectively, spurious hypoglycemia was likely to have been present. This case was reported in 1986 [3] and is included in the review by Sinha et al., but evidence that suggested possible spurious hypoglycemia documented in CDC internal records was not included in the published case report.

East African trypanosomiasis may be a fulminant infection that involves multiple organ systems. Such cases are readily diagnosed by peripheral blood smears and are overwhelmingly likely to be reported to the CDC. Further review of the archives of the Parasitic Diseases Drug Service of the CDC might disclose other cases not listed in this recent review.

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References
2. Horvath J, Dummar S. The use of respiratory tract cultures in the diagnosis of invasive aspergillosis among clinicians that causes them to perform more fungal diagnostic tests and so detect fungal infections more often in clinical specimens, better fungal isolation techniques in the laboratory, and/or an increase in the number of building construction sites around hospitals. Another contributing factor may be the recent availability of triazoles (e.g., fluconazole) for better treatment of and prophylaxis for candidal infections.

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