Echovirus Type 11: Outbreak of Hand-Foot-and-Mouth Disease in a Thai Hospital Nursery

Sir—Hand-foot-and-mouth disease (HFMD) is a mild exanthematous illness seen worldwide. The causative agents of HFMD include various serotypes of coxsackievirus, echovirus, and enterovirus [1, 2]. In recent decades, HFMD caused by enterovirus serotype 71 has undergone a transformation from a minor, self-limited illness to the cause of major epidemics with high associated morbidity and mortality. This has been particularly so in Asian-Pacific countries [3–7]. In Thailand, the annual incidence of HFMD was estimated to be 5.65 cases per 100,000 population, with no associated deaths, in 2003 [8]. We reported the first outbreak of HFMD caused by echovirus type 11 in a Thai hospital nursery.

On 16 March 2005, we were contacted by a staff member at the nursery unit of Thammasart University Hospital regarding a cluster of HFMD infections. The index case had been diagnosed on 10 March 2005. Over the next 6 days, 12 (20%) of 60 children subsequently developed painful vesicular lesions on the palms of their hands, the soles of their feet, and on their oral mucosa. The median age of the patients was 2.1 years (range, 1.1–2.9 years), and 6 (50%) were boys. All 12 children with HFMD had contact with the index case through shared toys and utensils. HFMD was confirmed, and the epidemiologic curve was created (figure 1). No children infected with HFMD developed any complications, and all care providers were without evidence of infection.

Stool samples for viral culture were obtained from 6 children infected with HFMD, 6 children not infected with HFMD, and all care providers. Cultures of environmental samples, including samples from activity and play room surfaces, tables, the computer, door handles, and the bathroom, were also performed. Multiple observations of pediatric care revealed modifiable breaches in infection control practices: towel-sharing, an irregular and unmonitored environmental cleaning schedule (for the nursery, toys, playroom, door handles, computer, and telephones), and poor compliance with hand hygiene. After extensive discussion with the hospital administration, the nursery was closed within 24 h after the infection control evaluation. During the 14-day unit closure, all soiled articles and clothing were cleaned, all surfaces were exposed to 1:10 sodium hypochlorite solution with 10-min dwell times, and a revised routine cleaning schedule for the nursery and an improved hand hygiene program were initiated. Stool cultures from 4 (66.6%) of 6 screened children infected with HFMD subsequently yielded echovirus type 11. No subsequent cases were identified in the 4 months after the nursery unit reopened.

Within the recognized limitations of retrospective study design, we report the first nosocomial outbreak of HFMD due to echovirus type 11. A definitive diagnosis of echovirus type 11 infection was made for the majority (66.6%) of symptomatic children with available stool for viral cultures. A presumptive diagnosis of echovirus type 11 infection was made for the other 6 symptomatic children who did not have stool culture performed. Our inves-
tigation supports the need for ongoing epidemiological surveillance and the rapid involvement of infection control specialists in Asian-Pacific outbreaks, to target prevention and control of emerging and reemerging infectious pathogens. Furthermore, our data emphasize the importance of compliance with infection control practices, especially hand hygiene, to help limit the transmission of communicable diseases.

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Potential conflicts of interest. All authors: no conflicts.

References


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Touched by Dr. Butler’s Wisdom

Sir—I read with particular interest the article by Murray et al. [1] regarding the situation of Dr. Thomas Butler. I completely agree with the main ideas of the article. Dr. Butler, who has spent most of his career studying diseases of underdeveloped countries, has been removed from his post and convicted of charges not related to his original arrest, in what has been considered an unprecedented, unfair, and disproportionate treatment for such a reputable physician and scientist.

Let me tell you that I did not have the privilege of meeting Dr. Butler in person, but I was touched by his wisdom 12 years ago. At that time, I was working as a research fellow at the Clinical Sciences Division of the International Centre for Diarrhoeal Diseases Research in Bangladesh. My colleagues and I were looking for new antibiotics to test in clinical trials against multidrug-resistant Shigella, highly prevalent in the country at that time. Our interest was concentrated on azithromycin, but few data had been published on this drug’s effect on enteric infections. I contacted Dr. Butler by fax, requesting advice on the idea of using an azalide against an enteropathogen. His response was immediate; he not only encouraged me to go on but also provided in vitro data from this drug’s effect on enteric infections. I contacted Dr. Butler by fax, requesting advice on the idea of using an azalide against an enteropathogen. His response was immediate; he not only encouraged me to go on but also provided in vitro data from his lab on the matter. With that information, we persuaded the center’s scientists to conduct the study. We performed the trial and published the results [2], but more importantly, we added to ciprofloxacin and pivmecillinam a new antimicrobial with which to treat shigellosis in the region. I am sure that none of that would have been possible without Dr. Butler’s help.

Dr. Butler has surely helped many fellows like me during his very productive academic career. Our contact was so brief that he might not remember the very valuable advice he provided via fax in 1993, but I would like to support him in this very difficult time of his life. If common sense prevails, he should be back to his previous position so he may continue to help us to fight infectious diseases around the world.

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Diagnosis of Cutaneous Mucormycosis Due to Rhizopus microsporus by an Innovative PCR–Restriction Fragment–Length Polymorphism Method

Sir—Mucormycosis is an opportunistic infection caused by saprophytic fungi belonging to the class Zygomycetes and the order Mucorales. These molds live in soil, air, decaying matter, and substrates such as fruits, cereals, and breads, and infections have been reported in rhinocerebral, pulmonary, gastrointestinal, cutaneous,