or other birds die. Those who knew about H5N1 influenza told me that, without adequate compensation for culling flocks, little incentive would exist to report bird deaths. In a typical village, chickens, ducks, and pigs intermingled with each other and with humans underneath or around homes on stilts. General knowledge of infection control practices among villagers was minimal.

The dissemination of information into a rural, agricultural society such as that in the southeast of Cambodia is a difficult task. Many rural inhabitants do not have televisions or radios and may infrequently travel to larger towns. Health workers from international groups, nongovernmental organizations, and the government are often required to travel on foot or motorbike through fields and forests to reach and educate the population. Government health workers lack the personnel and resources to adequately identify and investigate potential cases, and Cambodia has substantially fewer microbiology laboratories than do neighboring Thailand and Vietnam.

Should a pandemic of avian influenza occur, it will almost certainly originate in Southeast Asia. Cambodian and international health organizations have recognized the country’s potential key role in propagation of an impending pandemic agent. However, because of its history and current economic state, Cambodia is less able to respond to the avian influenza threat than its neighbors. In recognition of this fact, the World Health Organization and the Cambodian Ministry of Health have stated that the prevention, control, and identification of avian influenza are national priorities. Additionally, international funds have been flowing into Cambodia to assist with avian H5N1 influenza surveillance and case investigation. Much work remains to be done; we hope that by combining international resources and policy with domestic expertise and effort, Cambodia will mount a successful response against this emerging threat.

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Helicobacter pylori and Immunocompromised Children

To the Editor: Helicobacter pylori has been classified as a carcinogenic pathogen. Its prevalence is high in developing countries. Apart from the known gastrointestinal pathologic changes caused by this organism, reports on the association between H. pylori infection and extraintestinal diseases have been increasing. Although impaired host immunity should be associated with a high prevalence of this infection, a definitive relationship has not been established. We conducted a cross-sectional study to determine the prevalence of H. pylori infection in immunocompromised Thai children.

The study was reviewed and approved by the research ethic committee of Chiang Mai University. From 2003 to 2004, a total of 60 children <18 years of age, who received corticosteroids, immunosuppressive drugs, or both, were enrolled consecutively into this study. Patients who had taken proton pump inhibitors and antimicrobial drugs 2 weeks before the study began were excluded. Stool specimens were collected and immediately stored at –20°C before analysis with the H. pylori stool antigen test (Meridian Bioscience Inc., Cincinnati, OH, USA). Although no study has validated this test in Thai children, most studies report its high sensitivity and specificity (>90%) (1).

The children enrolled in the study had a mean age of 7.9 years (range 0.5–16.6) and most were receiving both corticosteroids and chemotherapy (n = 36). Fourteen patients were being treated exclusively with corticosteroids, and 10 patients were receiving only chemotherapy. A total of 17.4% of the children <5 years of age had H. pylori infection, and the overall prevalence was 20%. Although we observed a relatively high prevalence of infection in patients with malignancy, particularly leukemia, the trend did not reach statistical significance (Table).

In contrast to previous studies that reported a low prevalence of infection with H. pylori in patients with AIDS (2) and leukemia (3), we demonstrated

| Primary diagnosis                | H. pylori stool antigen test |
|---------------------------------|-----------------------------|
|                                 | No. positive | No. negative |
| Malignancy                      |              |              |
| Leukemia                        | 8            | 21           |
| Lymphoma                        | 2            | 3            |
| Neuroblastoma                   | 0            | 7            |
| Retinoblastoma                  | 0            | 2            |
| Nonmalignancy                   |              |              |
| Nephrotic syndrome              | 1            | 8            |
| SLE                             | 0            | 6            |
| Chronic renal failure           | 1            | 1            |

*SLE, systemic lupus erythematosus.

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Table. Helicobacter pylori stool antigen test results in immunocompromised children and primary diagnosis*
that its prevalence in immunocompromised Thai children (20%) was higher than that previously reported in a healthy Thai population (17.5%) (4) and in those with recurrent abdominal pain (11.3%) (5). The prevalence in children <5 years of age was high compared with that reported from Perez-Perez et al. (17.4% vs. 5%) (4). Although unintentional eradication of H. pylori after multiple courses of antimicrobial drugs in such patients could explain the low prevalence in some studies, commonly prescribed antimicrobial drugs without antisecretory agents may be unable to cure the infection.

The major limitations of this preliminary study were the use of different diagnostic methods in the various studies and the lack of healthy controls. Thus, a well-designed case-control study is needed. However, the prevalence of infection with H. pylori and in those with recurrent abdominal pain (11.3%) (4) and in those with recurrent abdominal pain (11.3%) (5). The prevalence in children <5 years of age was high compared with that reported from Perez-Perez et al. (17.4% vs. 5%) (4). Although unintentional eradication of H. pylori after multiple courses of antimicrobial drugs in such patients could explain the low prevalence in some studies, commonly prescribed antimicrobial drugs without antisecretory agents may be unable to cure the infection.

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