Nosocomial Transmissibility of Nipah Virus

To the Editor—A severe outbreak of fatal viral encephalitis mainly affecting pig farmers occurred in Malaysia in 1999. The outbreak was due to Nipah virus, a novel paramyxovirus [1]. Nipah virus was isolated from the upper respiratory tract secretions and urine of 8 of 20 patients with acute encephalitis [2]. Mounts et al. [3] found that 3 of 338 health care workers who were exposed to patients during the outbreak were positive for IgG antibodies, as determined by EIA. The 3 positive serum samples did not have an IgM response and were negative for anti–Nipah virus neutralizing antibodies; thus, the authors inferred that the results were likely to be false positives and commented that the lack of nosocomial transmission to the health care workers was somewhat unexpected.

Magnetic resonance imaging (MRI) of the brain is a sensitive and specific tool for diagnosis of acute Nipah virus encephalitis. The characteristic changes caused by Nipah virus encephalitis are numerous 2–7-mm discrete lesions disseminated in the subcortical and deep white matter of the cerebral hemisphere; these lesions are best seen in the T2-weighted fluid attenuated inversion recovery sequences [4].

Previous studies showed that asymptomatic Nipah virus infection was seen in 8%–11% of infected pig farms [5–7]. We used MRI of the brain to study 32 subjects with asymptomatic Nipah virus infection [8]. The characteristic cerebral abnormalities were found in 5 subjects (16%). Of these, 1 was a 41-year-old nurse who worked in the intensive care unit in which patients with acute Nipah virus encephalitis were treated during the outbreak. More than 20 lesions in this subject’s brain were revealed by MRI. She had no exposure to sick animals, no previous medical illness, and no underlying risk factors for atherosclerosis to suggest an alternative cause of the lesions. The cerebral lesions thus were likely to be the result of subclinical Nipah virus infection. The case demonstrated that nosocomial transmissibility of Nipah virus is possible, although the risk may be low.

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References

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