Drinking Bat Blood May Be Hazardous to Your Health

To the Editor—Fresh bat blood is still revered as an aphrodisiac in many parts of Asia, as are snake blood, reindeer pennis, shark fins, and ground rhino horns. In Thailand, although most bats are protected and some are regarded as endangered species, drinking bat blood is still popular in some regions [1]. However, at best, its power as an aphrodisiac is folklore; at worst, the practice of drinking bat blood may be hazardous to your health. Bats have long been known as a vector for rabies and may be an important natural reservoir for other deadly emerging viruses, including Hendra virus, Nipah virus, severe acute respiratory syndrome–associated coronavirus, Ebola virus, and Marburg virus [2–4]. Transmission of Nipah virus to humans may occur by direct contact with bats and infected pigs or indirectly by contact with material contaminated by bats [2, 5]. A seroepidemiologic study in Malaysia, Cambodia, and Bangladesh indicated that fruit bats of the genus Pteropus are the main reservoir for Nipah virus [5–7].

We have previously reported the evidence of Nipah virus infection in Thai frugivorous and insectivorous bats, as demonstrated by IgG antibodies to Nipah virus in serum and Nipah virus RNA in urine and saliva [8]. Although antibodies against Nipah virus were detected in Pteropus hypomelanus, Pteropus vampyrus, Pteropus lylei, and Hipposideros larvatus, the finding of unusually high antibody titers from P. lylei and the fact that Nipah virus RNA could be demonstrated almost exclusively in urine and saliva from P. lylei suggest that Nipah virus circulates mainly in this bat species in Thailand [8]. We report that Nipah virus RNA can be detected in bat blood and that risk of contracting Nipah virus infection from drinking of fresh bat blood may exist.

Forty serum samples collected from P. lylei during February 2004 were examined for the presence of Nipah virus RNA. Eleven of these samples contained IgG antibody to Nipah virus. Total RNA was extracted from 0.1 mL of serum, and RNA plasmid was introduced as an internal control RNA in the duplex-nested RT-PCR [8]. All samples with positive results were tested again without the positive control, and the sequence of amplified product was determined using internal primer. Two samples (one with an IgG antibody titer of 1:1600 and another with no demonstrable antibody) were found to be RNA positive. The remaining 38 samples were RNA negative and did not contain enzyme inhibitors. The 181-nucleotide sequences of the N gene were identical to those reported from Bangladesh (GenBank accession no. AY988601). Isolation of the virus was not attempted because of the unavailability of a biosafety level 4 facility.

Drinking of fresh bat blood and eating of improperly cooked bat products, as well as contact with the carcass or internal organs with bare hands, may pose risk of infection from Nipah virus and other deadly emerging viruses. Because infected bats rarely display clinical symptoms, it is difficult to determine whether a bat is uninfected. Although the presence of RNA in serum does not necessarily reflect infectivity, drinking of bat blood and eating of other raw products should be avoided and should not be promoted.

Acknowledgments

Financial support. Thailand Research Fund (DBG 4880001).