Evidence for Nipah virus recrudescence and serological patterns of captive Pteropus vampyrus.

ABSTRACT

This study aimed to describe the transmission dynamics, the serological and virus excretion patterns of Nipah virus (NiV) in Pteropus vampyrus bats. Bats in captivity were sampled every 7-21 days over a 1-year period. The data revealed five NiV serological patterns categorized as high and low positives, waning, decreasing and increasing, and negative in these individuals. The findings strongly suggest that NiV circulates in wild bat populations and that antibody could be maintained for long periods. The study also found that pup and juvenile bats from seropositive dams tested seropositive, indicating that maternal antibodies against NiV are transmitted passively, and in this study population may last up to 14 months. NiV was isolated from the urine of one bat, and within a few weeks, two other seronegative bats seroconverted. Based on the temporal cluster of seroconversion, we strongly believe that the NiV isolated was recrudesced and then transmitted horizontally between bats during the study period.

Keyword: Nipah; Bats; Pteropus; Recrudescence; Nipah.