Hantavirus Pulmonary Syndrome

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Hantaviruses continue to be isolated from a variety of rodents throughout the United States, including those which exist in close proximity to human populations. In October 1993, a resident of South Dade County, Florida was hospitalized with Hantavirus Pulmonary Syndrome (HPS) including renal involvement. During the investigation of this case, a previously unknown hantavirus, Black Creek Canal Virus (BCCV), was isolated from cotton rats (*Sigmodon hispidus*), a rodent commonly found in residential areas throughout the state. [1] Subsequent ELISA testing of rodent specimens collected from Dade County and other areas of South Florida from 1969-1974 using Sin Nombre Virus (SNV) antigen, derived from a related Hantavirus isolated in New Mexico showed a 6% reactivity rate. This testing of sera collected over 20 years ago showed that BCCV was not new to the state, but has only recently been recognized.[2]

Between August and December 1994 the Florida Department of Health and Rehabilitative Services (HRS) and the US Public Health Service, Centers for Disease Control and Prevention (CDC) attempted to better define the scope of Hantavirus activity in rodents and at-risk human populations in South Dade County. The rodent survey showed an overall reactivity rate of 8% to SNV antigen in ELISA tests and 96% of those infected were cotton rats.[2] Intensified surveillance at selected hospitals for patients admitting with HPS symptoms and renal involvement has not detected any new cases since the initial one in 1993. Also, ELISA tests using SNV antigen showed no evidence of past hantavirus infection in 649 sera collected from three local hospitals and the HRS State Regional Laboratory or 643 sera obtained from farm and ornamental nursery workers, county parks personnel and others that might have had occupational exposure to rodent feces or urine.[3]

Despite the lack of evidence of human infection in South Dade County, the presence of BCCV in native rodents and confirmation of an association between hantavirus infection and acute renal insufficiency continues to be of concern. Activities such as cleaning barns, sheds or abandoned dwellings, disturbing rodent inhabited areas while hiking, camping or working in enclosed spaces that have been infested with rodents may pose a risk of infection. Persons associated with such situations avoid inhaling dust and otherwise follow CDC prevention recommendations.[4]

References **10/26/99**

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3. Sneller, V, Zanni, A, Sfakianaki, E, Hlady, WG, Bigler, WJ, and Kahn, A *Surveillance for Black Creek Canal Virus in Florida* in prep.
4. CDC, *Hantavirus Disease- Southeastern United States: Interim Recommendations for Risk Reduction;;* MMWR 1993:42,RR-11