

Biosecurity Update

March 1, 2017

Seoul Virus Infections in Pet Rats and Humans

Seoul virus is a member of the Hantavirus family, a group of viruses found mainly in rodents. Seoul virus symptoms in most people are relatively mild but, in rare cases, some people develop hemorrhagic fever with renal syndrome (HFRS) which has a fatality rate of 1-2%. Infected rodents are asymptomatic but will shed the virus throughout their lives.

Seoul virus has been found in both wild (Norway) and pet rats worldwide. Rats can become infected through bite wounds or contact with the urine or feces of infected rats. Humans can become infected from contact with rat urine, feces or saliva, especially if these materials are carried in dust when vacuuming or sweeping rodent habitats. Transmission can also occur through bites, cuts, broken skin or mucous membranes. Seoul virus has not been found to be transmitted from person to person.

The US Centers for Disease Control and Prevention (CDC) is currently investigating an outbreak of Seoul virus infections. To date, the virus has been identified in pet rats in 15 US states. It has also recently been identified in a rattery in Ontario with connections to the US pet rat industry. Human cases, in people closely connected to rat breeding, have been identified in both countries.

Since rats may harbour numerous zoonotic diseases in addition to Seoul virus, including the causative agent of rat bite fever (*Streptobacillus moniliformis*), recommendations to rat owners include:

- Wash your hands with soap and running water after touching, feeding, or caring for rodents, or cleaning their habitats. Be sure to assist children with hand washing.
- Wear gloves when cleaning rodent cages and do the cleaning and disinfecting outdoors if possible. Never clean rodent habitats or their supplies in the kitchen or bathroom.
- Spray bedding with disinfectant and let it soak for 5 minutes before removing, to avoid spread of any virus that may be present in dust particles. Bleach solution (1 part bleach to 10 parts water) is an effective disinfectant on clean surfaces.
- Avoid bites and scratches from rodents.

Veterinarians whose clients are interested in having their rats tested should contact IDEXX Canada.

RESOURCES

CDC

<https://www.cdc.gov/hantavirus/outbreaks/seoul-virus/faqs-seoul-virus.html>

WORMS AND GERMS

<http://www.wormsandgermsblog.com/2017/01/articles/animals/pocket-pets/seoul-virus-in-pet-rats/>

PUBLIC HEALTH ONTARIO

http://www.publichealthontario.ca/en/BrowseByTopic/InfectiousDiseases/Documents/Seoul_Virus_Rat_Handling_2017.pdf

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