Hantavirus

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Hantavirus infections are relatively uncommon worldwide.

Those present in North, Central and South America are known to cause hantavirus cardiopulmonary syndrome (HCPS). Although uncommon, limited human-to-human transmission of HCPS due to Andes virus, a type of hantavirus, has been reported in community settings involving close and prolonged contact.

Hantaviruses found in Europe and Asia are known to cause haemorrhagic fever with renal syndrome (HFRS). Human-to-human transmission has not been documented in this part of the world.

Occupations such as forestry workers, farmers and military personnel have an increased risk of infection due to exposure to rodents. The risk of infection amongst campers, hikers and tourists to endemic areas is generally considered to be low and can be reduced if rodent contact is avoided.

The clinical features in patients with hantavirus disease vary, from asymptomatic (no symptoms) to severe symptoms. HCPS is characterized by headache, dizziness, fever, muscle pain, and gastrointestinal problems, such as nausea, vomiting, diarrhoea, and abdominal pain, followed by sudden onset of respiratory distress and hypotension. The most severe cases of HCPS may need additional supportive treatment e.g. respiratory ventilation in a hospital setting.

Symptoms of HCPS typically occur from 2-4 weeks after initial exposure to the virus. However, symptoms may appear as early as one week and as late as 45 days, following exposure.

As there is no specific treatment, management of hantavirus infections is mainly supportive and dependent on the individual nature of the different syndromes.

Prevention

There is no vaccine or medication to prevent hantavirus infection. Risk of infection can be reduced through taking steps to minimise exposure to rodents and their urine, droppings and saliva. The following will help reduce the risk of infection:

- Avoid contact with rodents and their droppings, urine and saliva. Keep rodents out of your home, workplace, cabin, shed, car, camper or other closed space. Seal up holes larger than the width of a pencil.
- Use snap traps to catch mice (not glue or live traps).
- Contain food and rubbish including food waste, in rodent-proof containers.
- To remove rodent mess, use moist cleaning with paper towels and disinfectant or bleach, and a face mask and gloves should be worn. Do not stir-up rodent dust by dry brushing or vacuuming. Cleaning materials should be carefully disposed of immediately. Hands should be thoroughly washed with soap and water.
- Seek prompt medical advice if bitten by a rodent or if symptoms of hantavirus infection

develop following contact with rodent urine, droppings or saliva in areas where hantavirus is known to be present.

Resources

- World Health Organization: Hantavirus
- UKHSA: Hantaviruses
- European Centre for Disease Prevention and Control: Disease information about hantavirus
- Centers for Disease Prevention and Control. Clinician Brief: Hantavirus Pulmonary Syndrome
- Centers for Disease Prevention and Control. Clinician Brief: Hemorrhagic fever with renal syndrome
- California Department of Public Health: Hantavirus infection