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Hantavirus

Hantavirus is a life-threatening viral infection spread to humans by rodents.

Causes

Hantavirus is carried by rodents, particularly deer mice. The virus is found in their urine and feces, but it does not make the animal sick.

It is believed that humans can get sick with this virus if they breathe in contaminated dust from mice nests or droppings. You may come in contact with such dust when cleaning homes, sheds, or other enclosed areas that have been empty for a long time.

Hantavirus does not seem to spread from human to human.

Symptoms

The early symptoms of hantavirus disease are similar to the flu and include:

- Chills
- Fever
- Muscle aches

People with hantavirus may begin to feel better for a very short time. But within 1 to 2 days, it becomes hard to breathe. The disease gets worse quickly. Symptoms include:

- Dry cough
- General ill feeling (malaise)
- Headache
- Nausea and vomiting
- Shortness of breath

Exams and Tests

The health care provider will perform a physical exam. This may reveal:

- Abnormal lung sounds as a result of inflammation

- Kidney failure
- Low blood pressure (hypotension)
- Low blood oxygen levels, which cause the skin to turn a blue color (cyanosis)

The following tests may be done:

- Blood tests to check for signs of hantavirus (presence of antibodies to the virus)
- Complete blood count (CBC)
- Comprehensive metabolic panel (includes kidney and liver function tests)
- Urinalysis
- X-ray of the chest
- CT scan of the chest

Treatment

People with hantavirus are admitted to the hospital, often to the intensive care unit (ICU).

Treatments include:

- Oxygen
- Breathing tube or breathing machine (mechanical ventilation) in severe cases
- Special machines to add oxygen to the blood
- Other supportive care to treat symptoms

There are no antivirals that work against hantavirus.

Outlook (Prognosis)

Hantavirus is a serious infection that gets worse quickly. Lung failure can occur and may lead to death. Even with aggressive treatment, more than one-half of people who have this disease in their lungs die.

Possible Complications

Complications of hantavirus may include:

- Kidney failure
- Heart and lung failure

These complications can lead to death.

When to Contact a Medical Professional

Contact your provider if you develop flu-like symptoms after you come in contact with rodent droppings or rodent urine, or dust that is contaminated with these substances.

Prevention

Avoid exposure to rodent urine and droppings.

- Drink disinfected water.
- When camping, sleep on a ground cover and pad.
- Keep your home clean. Clear out potential nesting sites and clean your kitchen.

If you must work in an area where contact with rodent urine or feces is possible, follow these recommendations from the Centers for Disease Control and Prevention (CDC):

- When opening an unused cabin, shed, or other building, open all the doors and windows, leave the building, and allow the space to air out for 30 minutes.
- Return to the building and spray the surfaces, carpet, and other areas with a disinfectant. Leave the building for another 30 minutes.
- Spray mouse nests and droppings with a 10% solution of chlorine bleach or similar disinfectant. Allow it to sit for 30 minutes. Using rubber gloves, place the materials in plastic bags. Seal the bags and throw them in the trash or an incinerator. Dispose of gloves and cleaning materials in the same way.
- Wash all potentially contaminated hard surfaces with a bleach or disinfectant solution. Avoid vacuuming until the area has been thoroughly decontaminated. Then, vacuum the first few times with enough ventilation. Surgical masks may provide some protection.
- If you have a heavy infestation of rodents, call a pest control company. They have special cleanup equipment and methods.

Alternative Names

Hantavirus pulmonary syndrome; Hemorrhagic fever with renal syndrome

References

Centers for Disease Control and Prevention website. Hantavirus.

www.cdc.gov/hantavirus/index.html [<https://www.cdc.gov/hantavirus/index.html>]. Updated November 16, 2021. Accessed April 4, 2023.

Dolin R. California encephalitis, hantavirus pulmonary syndrome, hantavirus hemorrhagic fever with renal syndrome, and bunyavirus hemorrhagic fevers. In: Bennett JE, Dolin R, Blaser MJ, eds. *Mandell, Douglas, and Bennett's Principles and Practice of Infectious Diseases*. 9th ed. Philadelphia, PA: Elsevier; 2020:chap 166.

Petersen LR, Ksiazek TG. Zoonotic viruses. In: Cohen J, Powderly WG, Opal SM, eds. *Infectious Diseases*. 4th ed. Philadelphia, PA: Elsevier; 2017:chap 175.

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