

Rabies



Protecting and enhancing the lives of lost, unwanted and homeless animals.

Rabies

General Information

Rabies is a viral disease that can affect mammals. The rabies virus infects the central nervous system, causes acute encephalitis (inflammation of the brain), and is almost always fatal. Rabies is most often seen in wild animals such as raccoons, skunks, bats, coyotes and foxes. Domestic animals account for less than 10% of the reported rabies cases. The incidence of rabies in dogs and cats has declined due to vaccination programs.

According to the BC Centre for Disease Control the only species that carries rabies in BC is bats. However in 2004 rabies was found in skunks in Stanley Park, Vancouver.

The virus is transmitted by infected saliva that enters the body via wounds (particularly bite wounds). It then travels from the wound site through the nerve pathways and up to the brain. The virus causes inflammation and swelling that result in the symptoms of the disease.

Other routes of transmission have been documented which include: contamination of mucous membranes or open wounds with infected saliva, aerosol transmission (inhalation of aerosolized rabies virus) and corneal transplants.

Once the infection is transferred, the virus enters an eclipse phase (incubation period) where it cannot be detected easily. During the time, the virus moves through muscle to the peripheral nerves and then through the nerves to the brain (Central Nervous system). This phase can last anywhere from several days to several months. A bite from an animal during the incubation period does not carry the risk of rabies because the virus is not in saliva. Once the disease is in the CNS, the spread of the disease is rapid. The virus multiplies and causes brain inflammation. It is late in the disease that the virus moves to the salivary glands and saliva.

An animal in the clinical phase of rabies can appear in two basic forms: “furious” or “dumb”.

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Furious Rabies: When the virus reaches the central nervous system you will see: headache, fever, irritability, restlessness and anxiety. An animal in this stage of rabies can behave aggressively. Also, muscle pains, salivation and vomiting can be shown. About a week later, there may be a stage of excitement and be wracked with muscle spasms which may be triggered by swallowing water. The animal may begin to fear water (hydrophobia) and be sensitive to air blowing on their face. This stage only lasts a few days before the animal lapses into a coma and dies.

Dumb Rabies: This starts in the same way, but the animal retreats steadily and quietly downhill as opposed to becoming excited. Paralysis and death occur afterwards and often the diagnosis of rabies involvement is often missed.

Rabies and humans

The most common route of exposure to rabies is through the bite of a rabid animal. Contact such as petting a rabid animal or contact with blood, urine or feces of a rabid animal does not expose a person to rabies.

The rabies virus causes an acute infection of the CNS. There are five general stages recognized in humans:

- Incubation (20-90 days)
- Prodrome (2-10 days-virus enters CNS and nonspecific signs and symptoms develop)
- acute neurological period (2-7 days-objective signs develop)
- coma
- death

If a person is bitten by a cat or dog they should thoroughly wash the wound with soap and water and seek medical evaluation as soon as possible. If the animal appeared healthy at the time of the bite it should be quarantined for 10 days and observed. If the dog or cat appeared ill at the time of the bite or at any time during the quarantine period, it should be evaluated by a veterinarian for signs of rabies and the person bitten should seek medical advice about postexposure prophylaxis.

Postexposure prophylaxis consists of a dose of rabies immune globulin and a dose of rabies vaccine as soon as possible after exposure. Additional doses are then given on days 3, 7, 14, and 28 after the first vaccinations. According to the Centre for Disease Control there have been no cases of a person developing rabies when postexposure prophylaxis is given promptly after exposure.

Recognition of disease

Symptoms of rabies infection are:

- First symptoms may be nonspecific flu-like signs: malaise, fever, headache (can last several days).

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- Discomfort at site of exposure (the bite wound area)
- After a few days, symptoms of cerebral dysfunction
- Anxiety, confusion, agitation, delirium, abnormal behaviour, hallucinations, insomnia, drooling

The acute period of disease typically ends after 2-10 days. However, once the clinical signs appear, the disease is almost always fatal.

In animals, testing for rabies requires a sample of brain tissue, thus testing can only be performed after the animal is dead.

General Policy

Rabies is not a treatable condition. Any animal showing signs and symptoms of rabies will be taken to the veterinarian immediately. Euthanasia is indicated if the veterinarian suspects rabies.

Prevention

Vaccination is the best way to prevent rabies. WAG does not vaccinate the shelter animals for rabies, however we encourage new owners to do the vaccination regardless of their animal being indoors only or if they are in a safe area.

The shelter animals are not permitted to roam freely, dogs must be on leash at all time. This helps to reduce contact with wildlife that may be carrying rabies. Rabies can also remain alive in the carcass of a dead animal for some time, thus dogs on leash will be prevented from coming in contact with a carcass.

New animals are isolated prior to their veterinary check ups. Animals should be monitored for signs of rabies and checked for bite wounds. Shelter workers must wear protective clothing, and have any open wounds covered

Preexposure vaccination is recommended for people in high risk positions such as veterinarians and shelter workers.

Initial Response

Animal Placement

Any animal that is showing symptoms should be kept away from other animals and the public and taken to the veterinarian IMMEDIATELY.

An unvaccinated animal that has been exposed to a known rabid animal should be euthanized. The alternative is to place that animal in strict isolation for 6 months and the veterinarian may attempt postexposure prophylaxis.

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If an unvaccinated animal has been bitten by a wild animal or bat and that animal is not available for testing, the dog or cat must be examined by a veterinarian and placed into isolation for 6 months.

A dog or cat that has been vaccinated prior to exposure is subject to a quarantine of 10 days to three months if their vaccination is current. They should also be revaccinated at the time of exposure.

An animal suspect for rabies or that may have been exposed to rabies must be reported to the Canadian Food Inspection Agency, the lead agency responsible for the diagnosis of rabies in Canada.

If a dog or cat bites a human and that dog or cat has not been vaccinated for rabies, the animal should be examined by a veterinarian and, if not showing signs of rabies, placed in isolation for 10 days. If the animal shows signs of rabies during the 10 day observation period, it must be euthanized and submitted for testing and the human should seek postexposure prophylaxis. If the animal does not show sign during the 10 day period it should be reexamined by the veterinarian before being released from quarantine.

Treatment

No treatment for rabies exists once an animal is exhibiting the signs. Euthanasia is indicated.

If a person has been bitten by an infected animal:

1. Wash the wound immediately (soap, detergent & water)
2. Seek medical attention immediately for vaccination and anti-rabies serum. Anti-rabies serum.
3. Gather information on the animal that bit the person
4. Contact Animal Control and the Canadian Food Inspection Agency

Before the onset of symptoms in humans, both passive and active immunizations are effective for preventing rabies.

Cleaning

Luckily, the virus does not survive long outside of animals (only a few seconds). It can be destroyed by sunlight, heat or air. Detergents, ethyl alcohol or a bleach solution (one in ten dilution) can kill the virus. The bleach solution must be left on the surface for a minimum of ten minutes to be effective.

Any area in which the virus is suspected is to be cleaned thoroughly with bleach. Any blankets, toys, bowls or anything that has been in contact with the animal is also to be cleaned with a bleach solution.

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Routinely disinfect working surfaces, mops, scrub brushes, floors, walls, doors, toys, blankets or anything else that may have been contaminated with fluids from an animal that is suspicious.

Ultraviolet light can also be used as the virus may become airborne.

Any infected waste should be in a puncture proof, leak proof container which is clearly labeled and disposed according to biological standards.

Public Safety

The public should not be permitted contact with animals that are new to the shelter and have not yet been examined by a veterinarian.

The public will not be permitted access to any animal that has been placed in quarantine/isolation in order to watch for signs of rabies.

If a member of the public is bitten by a shelter animal, advise them to wash the wound with soap and water immediately and seek medical attention as soon as possible.

Monitoring and Recovery

An animal in the clinical stages of rabies will not recover. An animal under watch for rabies should remain in isolation and monitored for sign of rabies. Follow the course of action recommended by the veterinarian.