



NEW YORK CITY DEPARTMENT OF
HEALTH AND MENTAL HYGIENE
Oxiris Barbot, MD
Acting Commissioner

2018 Veterinary Alert # 7

Canine Distemper Virus Identified in Two Raccoons from Prospect Park

- **Two raccoons collected from Prospect Park in Brooklyn tested positive for canine distemper virus (CDV).**
- **Only one new raccoon collected from Central Park during the last 3 weeks has tested positive for CDV; No new CDV infected raccoons have been reported from Pelham Bay Park.**
- **Veterinarians should ensure their patients are properly vaccinated to prevent potential infection with canine distemper virus.**
- **Raccoons are highly susceptible to canine distemper virus as well as mustelids, such as ferrets, minks, and skunks.**
- **Dogs and raccoons infected with canine distemper virus may have a clinical presentation similar to that of rabies.**

Please share with your colleagues in Veterinary Medicine and your staff

October 5, 2018

Dear Veterinary Colleagues,

Two raccoons exhibiting mild respiratory illness collected from Prospect Park in Brooklyn tested positive for canine distemper virus (CDV) at the New York State Wadsworth Laboratory. The initial raccoon was collected on September 22 on the East side of the park near Flatbush Avenue and the second on September 27 near the Picnic House on the West Side of the Park. Both raccoons tested negative for rabies. The situation will continue to be monitored. The NYC Department of Parks and Recreation is posting signs in the park to warn dog owners. In Manhattan, the previously reported outbreak of CDV among raccoons in Central Park continues to diminish. Only one additional raccoon collected during the last three weeks has tested positive for CDV. This raccoon was collected on September 19th. To date, 176 sick raccoons have been collected over the course of the outbreak in Central Park. No additional raccoons from Pelham Bay Park have tested positive for CDV other than the two previously reported.

Canine distemper virus is not uncommon among raccoons in the US. Raccoons are not routinely assessed to identify cause of illness or death so there is no data available to know where and how often CDV occurs among raccoons in NYC. Historically, recognition of CDV has happened when several raccoons with neurological illness, clustered in time and space, test negative for rabies. Distemper testing has been pursued using the remaining brain tissue. The virus is likely being transmitted regularly among raccoons in areas of NYC without causing large outbreaks. When the virus is newly introduced into a large, dense naïve population of raccoons it can spread rapidly and cause widespread illness. This is what we believe happened in Central Park. We don't yet know if there will be outbreaks in Pelham Bay and Prospect Parks. It is possible the affected raccoons are isolated cases that were identified because of heightened awareness due to the Central Park outbreak, along with the newly formed Wildlife Unit in the Parks Department which is closely monitoring city wildlife. Continued monitoring will be ongoing to assess the situation in both parks and updates will be shared with the veterinary community.

Canine distemper virus is a paramyxovirus and is related to human measles virus. It is most commonly identified in dogs and other canines, but can also affect mustelids such as ferrets, minks, and skunks, and procyonids such as raccoons. It is a highly contagious, systemic, viral disease of dogs with potential gastrointestinal, respiratory and neurological complications. Clinical illness in dogs can vary depending on their age and immune status. Mild illness can include fever, anorexia, fatigue, upper respiratory illness and oculonasal discharge that may mimic "kennel cough". Severe systemic

manifestations are most common in younger dogs with inadequate immunity. In addition to the signs described, dogs may go on to develop lower respiratory illness, vomiting and a watery and/or bloody diarrhea. Dogs that develop vesicular or pustular skin lesions rarely go on to develop central nervous system disease (CNS), whereas dogs that develop hyperkeratosis of the nasal planum and digital pads usually do have CNS involvement. CNS illness may develop concurrently or 1 to 3 weeks after recovery from systemic illness and is typically progressive. Signs may include myoclonus, ataxia, paresis, hyperesthesia and seizures with “chewing-gum”-like behavior. Infected dogs with minimal clinical illness that develop CNS signs months to years later are described as having old dog encephalitis (ODE).

Infection is spread primarily via respiratory secretions from infected animals, and the virus can be shed for several months. The virus is sensitive to lipid solvents and most disinfectants and can be killed using routine disinfection. It is inactivated by ultraviolet light, heat, and desiccation and is relatively unstable outside the host, although it has been known to survive in affected tissues or secretions for up to 3 hours at room temperature.

Infection can be prevented in dogs through routine vaccination of puppies starting at 6 to 8 weeks of age, using a canine distemper vaccine, and at 2 to 4 weeks intervals until 16 weeks of age. The vaccine is usually given as part of a combination canine vaccine. Booster protocols for older dogs may vary from annually to every three years. For additional information on diagnostic options please refer to previous veterinary alerts on our website at www1.nyc.gov/site/doh/providers/resources/zoonotic-vectorborne-publications.page or go to www.nyc.gov and search ‘Veterinary Alerts’.

Dogs and raccoons infected with canine distemper virus may have a clinical presentation similar to that of rabies. Remember to consider rabies for any animal presenting with an acute, rapidly progressive neurologic illness. Rabid animals have been reported regularly in New York City. For the most recent rabies activity in NYC, visit our website at www.nyc.gov/health/rabies.

The virus is not thought to be transmissible to humans, although general precautions should always be taken when handling any suspicious animals, as infection with rabies may mimic that of canine distemper.

As always, we greatly appreciate your partnership and cooperation.

Sincerely,

Zoonotic, Influenza and Vector Borne Disease Unit
Bureau of Communicable Disease

References

1. The Merck Veterinary Manual. 8th Edition. Merck and Company Inc. , Whitehouse Station, NJ, USA. 2005.
2. Infectious Diseases of the Dog and Cat. 3rd Edition. Greene CE. Elsevier, St. Louis, Missouri, USA. 2006.
3. <https://ahdc.vet.cornell.edu/>