Adenovirus Hemorrhagic Disease



College of **Veterinary Medicine**

HIGH FAWN

MORTALITY

RATE

BASICS

Adenoviruses belong to a small group of viruses that can infect a variety of animals, both wild and domestic. Adenoviruses attack the blood vessels of affected animals. They have a broad range of hosts and cause a wide range of illnesses in humans and animals.

Adenovirus Hemorrhagic Disease (AHD) is similar to other **HEMORRHAGIC** diseases seen in deer including Bluetongue and Epizootic Hemorrhagic Disease. Odocoileus adenovirus (OdAdV) infects ungulates like white-tailed and black-tailed deer, moose, and elk with mule deer being severely affected. **FAWNS ARE MORE SUSCEPTIBLE** to AHD and experience much higher mortality than adults.

Adenovirus manifests in acute and chronic forms. **CLINICAL SIGNS** of the acute form include rapid or open mouth breathing, foaming or drooling at the mouth, bloody diarrhea, and weakness. Neurologic signs such as seizures can occur. Animals may be found dead with no apparent cause. This disease course is often rapid and fatal.

Adenovirus **TRANSMISSION** can be through direct contact between deer and contact with bodily fluids like saliva, feces, or urine. Spread through airborne routes, contaminated water, and contaminated equipment may also occur. High-density deer populations could have a higher risk for the disease due to the ease of transmission.

AHD is **DIAGNOSED** at necropsy with gross findings, histopathology with adenovirus inclusion bodies, and finally PCR from lesions.

There is **NO TREATMENT** or vaccine for adenovirus hemorrhagic disease.

 The NYS Wildlife Health Program
 cwhl.vet.cornell.edu

 A partnership between NYS Dept. of Environmental Conservation and Cornell Wildlife Health Lab

(ALERT)

DIRECT

CONTACT

WITH

FLUIDS

WHO

MAR 2

UNGULATES

LIKE DEER

& MOOSE

HOW

DETAILS

HISTORY Adenovirus Hemorrhagic Disease (AHD) in deer was first identified in California in 1994. Estimates from the California outbreak indicate mortality of infected fawns generally was very high, with lower adult mortality. More recent outbreaks have shown similar mortality rates in adult deer as well as fawns. Outbreaks in deer have only been reported in western states thus far (August 2020).

CLINICAL SIGNS Chronic cases include signs of sores and/or abscesses in the mouth and throat and can lead

to weight loss and death. AHD infection can result in secondary bacterial or other viral diseases increasing mortality rates.

PREVENTION AND PRECAUTION

Proper disposal of carcasses, not moving infected, live deer to new areas, and preventing high numbers of deer near artificial feeding or water sources helps reduce disease spread. Individuals handling deer should take precautions to limit potential for disease spread by wearing appropriate PPE, such as gloves and cleaning equipment between deer.

