

Snake Virus Paramyxovirus

I cannot find any information on this reptile disease. Please, can you help?

By Margaret A. Wissman, DVM, DABVP

I had a 5-month-old ball python that has died of, I've been told, "parvo mixa." I cannot find any information on this disease. Please, can you help?

This disease is called paramyxovirus, not "parvo mixa." Therein lies the basic problem.

Paramyxovirus is most common in vipers, but it is occasionally found in other snake species. This virus is usually transmitted by nasal or respiratory secretions from infected snakes.

Infected snakes usually show respiratory signs of disease. Often they show nasal discharge, open-mouth breathing, abscess material building up in the oral cavity and increased respiratory sounds. Some snakes will have signs showing the nervous system has been affected, including head tremors and a severe twisting of the head and neck, which is called opisthotonos.

When a dead snake is examined, herp vets usually will see signs of things gone terribly wrong in the respiratory tract. Often the nasal passages and windpipe (trachea) are filled with cheesy pus. The lungs may be filled with fluid or caseous (cheesy) pus and often there is a secondary bacterial infection in them.

If a snake with respiratory signs does not improve on appropriate antibiotic therapy, paramyxovirus should be suspected. Lung tissue samples taken postmortem (necropsy or animal autopsy) can be used to detect virus particles on histopathology or by electron microscopy. Some paramyxoviruses can be grown in cell cultures. A hemagglutination inhibition (HI) test has also been developed to measure antibodies against this virus. The infection can look very similar to a reovirus that has also been discovered to cause deaths in snakes.

There is no treatment specifically for this virus. Antibiotics can be used to treat any secondary bacterial infections. Isolation of sick animals and strict hygiene should be practiced to prevent the spread of paramyxovirus through a snake collection. At this time, no vaccine providing adequate protection against this virus is available.

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Need a Herp Vet?

If you are looking for a herp-knowledgeable veterinarian in your area, a good place to start is by checking the list of members on the Association of Reptilian and Amphibian Veterinarian (ARAV) web site at www.arav.com. Look for DVMs who appear to maintain actual veterinary offices that you could contact.