

Stroke Symptoms Can Come on Like Gangbusters, Even in Pets

Cats and dogs can suffer from strokes just like people. Pet parents remark that one minute their pet's fine, the next he was down and couldn't get up. They're relatively rare, but when they occur they demand fast action. So you'll be glad you familiarized yourself with these symptoms.

Analysis by Dr. Karen Shaw Becker

STORY AT-A-GLANCE

- Cats and dogs can suffer from strokes just like humans do
- Most strokes in pets are ischemic in nature and caused by blood clots that interfere with blood flow to the brain
- Signs your pet is having a stroke include a head tilt, difficulty walking and abnormal eye movements (nystagmus)
- Either an MRI or CT scan is required to accurately diagnose a stroke in dogs and cats
- Treatment is focused on minimizing brain swelling and tissue damage, maximizing oxygen flow to the brain, identifying and treating the underlying cause of the stroke and physical therapy

Editor's Note: This article is a reprint. It was originally published January 28, 2017.

It wasn't until fairly recently that the veterinary community realized that just like humans, dogs and cats also suffer strokes — perhaps more frequently than we thought.

With increased use of magnetic resonance imaging (MRI) and computerized tomography (CT) scans in pets, strokes are being diagnosed more often. Fortunately, they are still a relatively rare occurrence in both dogs and cats.

What Exactly Is a Stroke?

In a nutshell, a stroke is a brain abnormality that occurs as the result of a disruption of the blood supply to the area. Circulating blood feeds oxygen and glucose to the brain. If a blood vessel becomes blocked or ruptures, the brain is deprived of those critical nutrients.

Most strokes are ischemic strokes caused by a blood clot (embolus) that develops in the circulatory system. The clot at some point dislodges and travels to a blood vessel that feeds nutrients to the brain, interrupting blood flow and causing surrounding tissue to die.

Strokes in dogs and cats can also result from bleeding in the brain (called hemorrhagic strokes) caused by the rupture of blood vessels or a clotting disorder. Hemorrhagic strokes are much less common in pets than ischemic strokes, and are usually the result of trauma or disease.

There's also a non-brain related type of stroke called a fibrocartilaginous embolism (FCE). An FCE is a blockage in a blood vessel in the spinal cord. It's often referred to as a spinal cord stroke.

There are several disorders that are associated with strokes in pets, including bleeding disorders, diabetes, hypertension, heart, kidney or thyroid disease, Cushing's syndrome, Rocky Mountain Spotted Fever (a tick-borne disease) and cancer.

Internal parasites, tumors, ingestion of toxins, head trauma and high doses of steroids such as prednisone can also be contributing factors.

Symptoms to Watch for

The symptoms of stroke in dogs and cats depend on the location and extent of bleeding from cerebral arteries in the case of hemorrhagic stroke, or much more commonly, blockage of cerebral arteries in the event of an ischemic stroke. Symptoms typically come on suddenly and can include:

- Head tilt
- Weakness
- Abnormal eye movements (nystagmus) or eye positioning
- Seizures
- Difficulty walking or inability to walk
- Disorientation
- Loss of bowel control
- Collapse
- Loss of balance
- Persistent circling
- Inappropriate urination
- Coma
- Loss of coordination
- Sudden vision impairment
- Stupor
- Other sudden behavioral changes

Pet parents often remark that one minute their dog or cat was fine, and the next minute the animal was down and couldn't get up. These episodes can last for just a few minutes, or for hours or even days.

When a pet recovers from one or more signs of a stroke in less than 24 hours, it's usually considered a transient ischemic attack (TIA). Fortunately, TIAs typically don't result in permanent brain damage.

Stroke Diagnosis

If your pet is exhibiting symptoms of a stroke, it's important to get him to your veterinarian or an emergency animal hospital right away. Since there are many unrelated disorders with stroke-like symptoms, quick action and a proper diagnosis are critical.

For example, vestibular disease in geriatric dogs is often mistaken for stroke. The vertigo caused by the disease can be particularly intense in older dogs with symptoms of nausea, difficulty or complete inability to stand up, head tilt, nystagmus and circling.

Your veterinarian will need to run a variety of diagnostic tests, including bloodwork and a urinalysis, to rule out other possible causes for your pet's symptoms.

If the problem isn't obvious from initial test results, additional diagnostics will be required to look for evidence of a stroke, including an MRI or CT scan of your pet's brain.

Your pet may be sent to a veterinary specialist (neurologist) for these scans, and may need to be hospitalized for the procedures. CT and MRI scans are the gold standard for diagnosing strokes in pets, including whether the stroke is ischemic or hemorrhagic. Other tests that may be needed include:

- Arterial blood gases to assess oxygenation of blood
- Coagulation profiles to assess blood clotting
- X-rays of the skull to look for evidence of trauma or fractures
- Electrocardiogram (ECG) to evaluate heart rhythm
- A spinal tap to evaluate cerebrospinal fluid

Treating a Pet Who Has Had a Stroke

If your pet's symptoms are severe, she may need to be hospitalized to receive oxygen and fluid therapy and other supportive care.

Treatment of stroke patients is focused on minimizing brain swelling and tissue damage, maximizing oxygen flow to the brain, identifying and treating the underlying cause of the stroke if possible and physical therapy.

Initial treatment typically involves intravenous fluids and IV corticosteroids to control brain swelling and support blood circulation to the brain.

This is a situation in which giving corticosteroids immediately can be life-saving and help prevent permanent damage. Seizures must also be controlled with conventional drugs to prevent further brain damage. Anti-seizure herbs usually do not work quickly enough to help during the initial crisis, and are difficult to administer to a vomiting dog.

The neurologic symptoms of a stroke gradually resolve on their own as the animal's body re-establishes normal blood flow to the brain and swelling resolves. During this period, acupuncture, antioxidants (SOD and astaxanthin), Chinese herbs and homeopathy can be very beneficial.

The most crucial supplement to add for these patients, in my opinion, is nattokinase, which can also help prevent additional strokes from occurring. The brain has the ability to recover given time. As always, early diagnosis and treatment can dramatically improve your pet's chances for a full recovery.

Pets who survive the first few days following a stroke have a good chance for a full or nearly full long-term recovery when the underlying cause can be identified and either eliminated, or successfully controlled.

Sources and References

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