Canine and feline stroke

What are strokes?

Strokes or cerebrovascular accidents (CVAs) cause a sudden onset of brain damage lasting more than 24 hours or leading to death. The majority of strokes in dogs and cats result from the blockage of a blood vessel due to a more general health issue such as high blood pressure, diabetes or kidney disease.

What are the clinical signs of strokes?

The clinical signs typically reflect asymmetric brain damage. CVAs have been documented to affect all regions of the brain. The average age of dogs and cats affected with presumed CVAs is 8 years and 12 years respectively.

Clinical signs include an abnormal mental status, seizures, transient asymmetric weakness and blindness with circling. Seizures can be part of the initial presentation, but some will develop long term epilepsy after the stroke event. Signs can also include a very wobbly walk and flicking of the eyes from side to side or up and down with a tilt of the head to one side.

What can cause strokes?

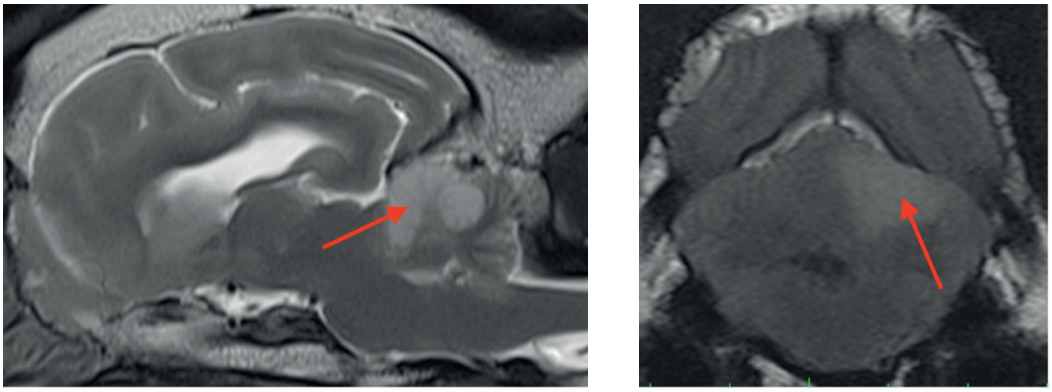
Strokes may result from excessive blood flow through the brain (due to increased blood pressure), or something blocking the blood vessels. Cavalier King Charles spaniels and greyhounds are predisposed to CVA.

Dogs can have diseases which might predispose to blood vessel blockage such as chronic kidney disease, and Cushing's Disease. For cats, CVA can appear after they have been affected by hypertrophic cardiomyopathy, neoplasia and hyperthyroidism. In cats with brain haemorrhages, significant liver pathology and kidney disease has been identified in 100% and 25% of cases, respectively. Hypertension can also result in intracranial haemorrhage such as coagulation problems, infectious diseases and cancer.

How are strokes diagnosed?

Strokes should be suspected in any animal with a very sudden onset and non-progressive (after 24-48 hours) of asymmetric brain disease without obvious signs of pain.

A blood pressure measurement should be undertaken to determine whether hypertension is present. A faecal examination should be performed to rule out parasites. Specific blood coagulation testing is also commonly performed. The most specific way to diagnose strokes is with advanced brain imaging tests such as CT (Computed Tomography) scans, or preferably MRI (Magnetic Resonance Imaging).



A dog brain clearly showing a large stroke

How are strokes treated?

Therapy for strokes includes management of any underlying health disorders as sometimes emergency treatment of a pressure build up in the brain occurs in the first 24-48 hours. There is no specific medical treatment for a stroke in veterinary medicine unless it is diagnosed within 4 hours of its onset. Short-term prognosis for cats and dogs with strokes if they are neither severely affected nor impacted by critical concurrent disease is good. Long-term prognosis in dogs is good if no underlying disease is found. The long-term prognosis in cats with CVAs is currently unknown.