

Cerebellar Infarctions in Dogs

Cerebellar infarction in dogs has received little attention in the veterinary literature. This article, which describes 4 cases, shows that it is possible to definitively diagnose this condition when the animal presents with acute neurologic abnormalities. The first case was in a 7-year-old neutered Cavalier King Charles spaniel with acute onset of nonambulatory tetraparesis, right-sided head tilt, positional vertical nystagmus, and absent bilateral menace response. The dog had consistent high systolic blood pressure. Magnetic resonance imaging (MRI) of the brain showed a large, left-sided, rostral cerebellar wedge-shaped region. The dog was discharged 3 days after admission with enalapril maleate and meclizine HCL. The second case, in a 6-year-old spayed Tibetan terrier, involved acute onset of vomiting, excessive ptyalism, restlessness, intention head tremors, and progression to a nonambulatory state. Thoracic radiographs indicated cardiomegaly with mild left-atrial enlargement. The MRI showed a right-sided, rostral, wedge-shaped cerebellar lesion similar to that in the first case but on the other side. Cerebrospinal fluid analysis was within normal limits. The next case involved a 10-year-old spayed Labrador retriever with acute onset of trembling, vomiting, and nonambulatory tetraparesis with episodes of rolling across the floor. Based on other abnormalities, a left-sided cerebellomedullary lesion resulting in paradoxical syndrome was suspected. The MRI showed a wedge-shaped lesion in the dorsorostral left cerebellum. The final case was in a 15-year-old spayed mixed Labrador retriever with acute onset of nonambulatory tetraparesis, vomiting, and diarrhea. The dog had been previously diagnosed with hyperadrenocorticism and was also being treated for a urinary tract infection. Abdominal ultrasonography revealed multiple nodules with a disorganized texture throughout the liver. The MRI confirmed a right-sided, small focus lesion in the rostral cerebellum. The use of MRI greatly enhances the ability to definitively diagnose cerebellar infarcts.

COMMENTARY: MRI diagnosis of cerebellar infarction in dogs has only been reported 1 other time in the veterinary literature. With a more sophisticated method of diagnosis, the condition seems to be more common than originally believed. The article describes, in detail, the technical aspects of MRI. Brain images (including the infarction) are shown to support the discussion of each case. Make sure you add cerebellar infarction to your rule-out list for acute vestibular signs. Younger patients may take longer to recover, so it is worthwhile to refer suspected patients if their owners can afford the cost of an MRI.—*Chris Wong, DVM*

Suspected cerebellar infarcts in 4 dogs. Irwin JC, Dewey CW, Stefannacci JD. *J VET EMERG CRIT CARE* 17:268-274, 2007.