Cruciate Ligament Rupture Causes Signs Similar to Hip Dysplasia

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Hip dysplasia is the most common orthopedic (bone and joint) disease diagnosed in large and giant breed dogs. Many dogs, however, who have abnormal hips on radiographs (x-rays), do not show any signs of lameness.

Rupture of the cranial cruciate ligament (analogous to the anterior cruciate ligament (ACL) in people) of the knee also occurs commonly in dogs. In dogs, it is the most common cause of arthritis in the knee.

The diagnosis of both hip dysplasia and cranial cruciate ligament rupture (CCLR) are based on clinical signs, the results of a physical examination, and either radiographs or other imaging studies. Since both diseases can cause hind limb lameness, it is important that the correct diagnosis be made.

Researchers at the College of Veterinary Medicine at Washington State University wanted to determine how many dogs with lameness that had been attributed to hip dysplasia actually had CCLR. They reviewed medical records of 369 dogs from 1994 to 2003 in which the referring veterinarian had diagnosed either hip dysplasia or hip pain to determine how many of the dogs had CCLR.

Of the 369 dogs, 119 (32%) had evidence of CCLR in either one or both knees. For these 119 dogs, radiographs of the hips were available for 111, and of these 104 (94%) also had evidence of hip dysplasia.

Of the remaining 250 dogs, 243 (66%) had evidence of hip dysplasia without any evidence of a ruptured CCLR. Seven dogs (2%) were found to have other orthopedic conditions.

The researchers observed, "Canine hip dysplasia may be the most commonly diagnosed orthopedic disease, but it is possible that CCLR is the most common cause of hind limb lameness because most dogs with canine hip dysplasia have no clinical signs or moderate clinical signs that are managed medically."