Cauda Equina Syndrome & Synovial Cysts
Two German shepherds were diagnosed with cauda equina syndrome. One dog had a week-long history of difficulty standing, stiff gait, muscle atrophy, and conscious proprioception deficits of the right leg. Pain was elicited on palpation of the lumbosacral area. The second dog was presented with a 3-month history of ataxia of the left hind limb, difficulty climbing stairs, and lumbosacral pain. Muscle atrophy was present on the left limb. Magnetic resonance imaging in both dogs revealed cystic masses that were surgically removed. Both dogs recovered and were pain free between 6 and 8 months after surgery. Histologic examination of the tissue revealed that they were synovial cysts. Synovial cysts at the lumbosacral junction are rarely reported. This may reflect a true low incidence or difficulty in detecting them. Cysts can be detected by computed tomography or magnetic resonance imaging (the latter is preferred) but not survey films or myelography. The cause and pathogenesis are unknown but may be related to trauma or degenerative joint disease. Extradural synovial cysts should be considered in the differential diagnosis of cauda equina syndrome in large-breed dogs.

COMMENTARY: Lumbosacral instability and the associated cauda equina syndrome can cause significant morbidity, particularly in working and sporting dogs. While many dogs have radiographic signs of degenerative joint disease, magnetic resonance imaging and computed tomography provide much more detailed information regarding soft tissue abnormalities. Since the postoperative outcome appears to be very good after decompression and complete excision of the cyst, documenting that a cyst is present before surgery may assist in planning and performing the surgical procedure.—Eric R. Pope, DVM, MS, Diplomate ACVS