NEUROLOGY

Diskospondylitis

by Anthony Conte, DVM

Diskospondylitis is a bacterial or fungal infection of the intervertebral disks and adjacent vertebral endplate. It is primarily a disease of dogs, and while it can occur in cats, it is very rare. Male dogs are affected more frequently than females and large breed dogs are affected more frequently than smaller dogs.

Diskospondylitis is most frequently caused by bacteria, including E. coli, Staphylococcus, Streptococcus, and Brucella. However, diskospondylitis can occasionally be caused by fungal organisms, as well. The infection can be systemic, meaning it can present in other organs such as the urinary system or heart valves.

Diskospondylitis may occur at one particular location within the spinal column, or it may occur at multiple sites. The L7-S1, T13-L1 and C6-7-T1 disks are the most commonly affected.

Signs of diskospondylitis often begin gradually and slowly progress over time. In many cases, the first sign of diskospondylitis is back pain. The dog or cat may act stiff, reluctant to jump on or off furniture, or may express pain when turning a certain way or being touched in a certain location. As the condition progresses, additional signs may include stiffness and muscle weakness in the limbs. In severe cases, the pet may become paralyzed. Many affected animals, though not all, also show nonspecific signs such as decreased appetite, weight loss, and lethargy.

Pets with diskospondylitis often require baseline testing, which includes blood work (CBC, chemistry panel), urinalysis, urine culture and sensitivity to find out which bacteria is the cause and which medicine is best to treat the infection, blood tests for Brucella, and potentially blood cultures or an ultrasound of the heart. Radiographs may be suggestive of diskospondylitis and MRI can provide definitive diagnosis. Radiographs are used to monitor response to treatment. Occasionally spinal surgery may be indicated to remove the infection and obtain samples for culture and sensitivity.

Treatment of diskospondylitis typically involves IV or oral antibiotics, which are ideally based on results of culture and sensitivity. Antibiotic treatment is long-term, typically at least three to six months, but can be longer if there is recurrent pain. Pain medications are prescribed since most dogs are experience a lot of pain. Occasionally surgery may be necessary. Strict rest is imperative during the recovery process as the vertebrae, supporting ligaments and muscles are weak and prone to injuries such as fractures and subluxation. These types of injuries can be devastating and difficult to repair if they occur.

Close monitoring and follow-up examinations are recommended. Rechecking radiographs helps to assess whether there is adequate healing (or continued infection). These are performed every six to eight weeks.

The prognosis for dogs affected with discospondylitis depends on the underlying cause of infection. Bacterial diskospondylitis often carries a good prognosis. Most cases will resolve with early and aggressive treatment, although six to twelve months of antibiotics may be required and relapses can occur.

Diagnosis requires advanced imaging with the safest and most reliable diagnosis achieved by MRI and potentially dynamic MRI. While CT can be used the advantage of MRI is that it allows direct visualization of the spinal cord and signal changes to the cord itself. Treatment varies from medical support, exercise restriction, pain

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medications, anti-inflammatories all the way to surgery. Different
cases will have different recommendations for treatment.

In regard to long term management of wobblers syndrome, if elected to treat without surgery this will require long term medical management going forward. With surgical correction there is about a 20% recurrence rate however when surgical correction is elected about 25% will remain stable.

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