Rare Vertebral Disease of Foals Described (AAEP 2012)

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Recognizing vertebral osteomyelitis/diskospondylitis (VOD), a rare and potentially fatal degenerative spinal disease, early is critical to successful treatment, said Michelle C. Coleman, DVM, Dipl. ACVIM, of Texas A&M University's College of Veterinary Medicine.

Vertebral osteomyelitis refers to inflammation and/or infection of the vertebral body, while diskospondylitis involves the associated discs. In order to get a better picture of this rare but challenging disease, Coleman and her group conducted a retrospective study of foals affected with VOD. She described their results at the 2012 Convention of the American Association of Equine Practitioners, held Dec. 1-5 in Anaheim, Calif.

Clinical signs of VOD in horses most commonly include fever, lethargy, increased heart rate, increased respiration rate, and loss of appetite. Affected horses might also exhibit stiffness, pain on palpation, swelling over the vertebrae (most noticeable in the neck), lameness, and swollen lymph nodes. Because these signs are nonspecific, it can be difficult to make a clinical diagnosis.

Coleman listed several theoretical causes of VOD, such as spread of bacteria through the bloodstream; commonly, veterinarians see this following systemic infections in dogs and they speculate that a similar process could happen in foals with sepsis due to failure of passive transfer of maternal antibodies. However, scientists have not completed research to support this hypothesis. Localized invasion or infection from something like an injection or puncture wound could also cause VOD, as could crushing trauma (ie. from flipping over).

In order to gain a better clinical picture of equine VOD, the research team analyzed the records of 17 foals that were less than 1 year old with a clinical diagnosis of VOD and displayed more than one sign of bone or disc degeneration on necropsy or imaging data. For foals diagnosed via necropsy, pathologists had to confirm diagnosis with histopathology or by the presence of more than two points of gross evidence of VOD. Investigators excluded animals with fistulous withers from the study.

They included 11 colts and six fillies aged 2 weeks to 4 months old in the study. The foals' clinical signs were consistent with those described Nine of the 17 foals did not survive to hospital discharge. Investigators discovered that radiographic signs lagged behind clinical disease.

VOD is an uncommon but serious condition in the horse. Although early diagnosis is critical to treatment, diagnosis could be confounded by the highly variable and nonspecific signs of the disease. Coleman said that, ideally, subsequent epidemiologic studies could help veterinarians determine risk factors for development.

Disclaimer: Seek the advice of a qualified veterinarian before proceeding with any diagnosis, treatment, or therapy.