Disseminated Idiopathic Skeletal Hyperostosis in a Dog

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Signalment: A 10-year-old female Fox Terrier dog has presented with hindlimb gait disturbance during last 7 months. Radiographs, computed tomographs(CT), magnetic resonance imaging(MRI), and blood tests were performed for identification of the abnormalities.

Results: Flowing ossification along the ventral side of vertebrae through thoracolumbar to coccygeal vertebrae was shown on the plain radiographs. CT study has revealed calcified deposits in the ventral longitudinal ligament, with a related radiolucent band between the calcified regions. The ventral bony outgrowth was found in cervical region from C5 to coccygeal vertebrae. Severe hydrocephalus with intracranial arachnoid cyst and syringohydromyelia at the thoracolumbar region were evaluated on the MRI. Also the stenosis of lumbosarcral part was determined. The patient, however, was euthanatized according to its owner request.

Clinical relevance: Disseminated idiopathic skeletal hyperostosis(DISH) is an extensive periarticular calcification and ossification throughout the body, including the vertebrae. Vertebral extensive bony outgrowth ventrally more than three vertebrae may consider DISH as well as spondylosis deformans. Gait problem is the common sign of DISH, however its accompanied conditions such as syringohydromyelia or IVDD could be considered for explaining the clinical sign. While conventional radiographs confirm the diagnosis of DISH, CT and MRI better detect associated findings and complications.

Key words: DISH, radiographs, CT, MRI, spondylosis deformans.