Computed tomography characteristics of a spinal epidural hemangiosarcoma in a young dog

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Introduction
Hemangiosarcomas are malignant tumours of vascular endothelial cells and their precursors, most commonly located in the spleen and the right atrium, although they can be seen in any vascularised organ (1). Myelopathy in dogs associated with hemangiosarcomas is usually the result of a primary or metastatic vertebral bone hemangiosarcoma that invades the vertebral canal and compresses the spinal cord (1,2). To our knowledge, only two cases of primary epidural hemangiosarcoma (PEH) have been reported, (3,4). The current report describes for the first time the computed tomography (CT) imaging features of a presumed PEH.

Case description
A 2-1/2-years-old intact male German Shepherd was admitted to the hospital with acute hind-limb paraplegia. Neurologic examination revealed absence of proprioception, increased patellar reflexes and absence of superficial and deep pain perception in both hind limbs. A thoracolumbar (T2-L3) spinal cord lesion was suspected and a CT scan of the thoracic and lumbar spine performed. CT transverse images were obtained with a helical multi-slice CT scanner (GE Lightspeed QX/I, General Electric Co., Milwaukee, WI). Pre-contrast images showed a hyperdense (+/- 75 HU) extradural, extramedullar elongated mass paramedian right in the spinal canal from cranial L2 to caudal L3 with severe compression on the spinal cord. Mild degenerative disc changes were visible at the T12-T13 and L2-L3 levels. Iodinated contrast medium was administered intravenously and very mild, diffuse enhancement of the mass was visible. On the CT-images, no bony lesions or abnormalities were present in thoracic or abdominal organs. Based on the anamnesis and CT findings, differential diagnosis included disc herniation (extrusion), epidural hematoma/haemorrhages or neoplasia.

Exploratory surgery revealed an epidural mass lesion, macroscopically compatible with a hematoma, and absence of any obvious disc material. Histopathology and immunohistochemical staining of the mass, however, confirmed a diagnosis of a spinal epidural hemangiosarcoma.

Discussion
CT findings of epidural hemangiosarcoma may resemble those of acute disc herniations and epidural hematomas/hemorrhages (5). Hemangiosarcoma should be included in the differential diagnosis of young dogs with acute onset of neurological symptoms of a localised thoracolumbar spinal cord lesion and absence of vertebral lesions. However, histopathology is necessary to confirm the diagnosis.

References