



Oral Presentation

Could failure after decompression surgery in extruded disc herniations be caused by fibrocartilaginous embolism?

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Abstract

Intervertebral Disc Extrusion (IVDE) is one of the common causes of neurological dysfunction in dogs. Clinical manifestations occur acutely, ranging from the presence of only pain to paralysis. Mostly the sensation of deep pain is lost. Fibrocartilaginous embolic myelopathy (FCE) refers to acute infarction of the spinal cord. It has been proven that the fibrocartilage material from the nucleus pulposus of the intervertebral disc settles in the vascular system of the spinal cord and causes ischemia. In cases of FCE, MRI showed hyperintensity and edema in T2-weighted sequences of the spinal cord at the level of one intervertebral disc. Decompression surgery is not recommended in FCE cases because of spontaneous healing. Decompression surgery have been performing in extrusive disc hernias which referral to Istanbul University-Cerrahpaşa Faculty of Veterinary Medicine Department of Surgery Clinics, resulting in rapid improvement in neurological functions. However, in cases with increased T2W signal on MRI, starting from the level of disc extrusion, accompanied by epidural bleeding, extending to the spinal cord segments in the anterior or posterior or both directions, clinical findings could not be improved or a very late improvement was observed. We aim to share the clinical conditions and MRI findings of these patients who did not see improvement after decompression surgery. Spinal cord hyperintensity on T2W images has been the most widely investigated parameter . This spinal cord hyperintensity identified on T2W images has been associated with necrosis, myelomalacia, intramedullary hemorrhage, inflammation, and edema. The enlargement of the area of spinal cord hyperintensity is a more reliable prognostic predictor than the absence of deep pain perception. These signal enhancements usually occur in a small area where the annulus ruptures and the nucleus pulposus impinges on the spinal cord. However, we are of the opinion that the increase in T2W signal observed in our cases at the long level did not occur due to impact or compression of the disc, but due to venous infarction caused by FCE, and we believe that it is a condition that significantly affects the success of decompression surgery.

Keywords: dog, mrg, intervertebral disc extrusion, fibrocartilaginous embolism

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