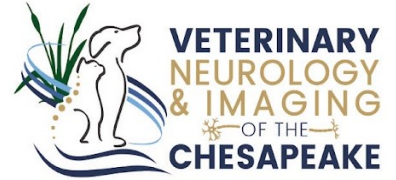


NEUROLOGY

Spinal Arachoid Diverticula

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A spinal arachnoid diverticulum (also known as an arachnoid cyst) is a CSF-filled diverticulum (a pouch-like dilation of a tubular organ) of the subarachnoid space (the layer of the spinal cord between the arachnoid membrane and the pia mater).

Spinal arachnoid diverticula are typically solitary, dorsally or dorsolaterally-located, focal accumulations of fluid that occur at the cranial cervical (most commonly over C2–C3 vertebral segments) or caudal thoracic regions of the spinal cord. There are many terms for this including subarachnoid cysts, pseudocysts, cavitations or diverticula. Multiple or bilobed spinal arachnoid diverticula are also encountered. Ventrally-located spinal arachnoid diverticula have also been reported uncommonly.

The most common site for diverticula in the cervical region is C2–C3 followed by C5–C6. The most common location in the thoracolumbar region is T9–T10 followed by T13–L1.

The underlying cause is often unknown, but they can occur secondary to a variety of hereditary/congenital disorders, trauma, intervertebral disk herniation/protrusion, or meningomyelitis.

The age of onset of clinical signs is variable, ranging from months to 13 years of age. Clinical signs reflect the location of the lesion (cervical or thoracolumbar myelopathy with associated tetraparesis and paraparesis respectively) and are typically progressive. Painful responses to manipulation or palpation may be present and asymmetrical signs are also possible.

Diagnosis is best achieved with advanced imaging of the spine. CT myelography and MRI imaging are usually the modalities of choice. The MRI appearance is often diagnostic for arachnoid diverticula.

Treatment can be medical or surgical. Medical management consisting of glucocorticoid therapy can be elected on a case-by-case basis; however surgical correction may be necessary. Surgery is recommended for animals with progressive signs. Approach is by dorsal laminectomy or ventral slot, depending on the location. Typically, the diverticulum is fenestrated, extirpated and potentially marsupialized.

Surgical treatment carries a favorable prognosis with roughly 60% to 85% having a good outcome with the potential of a 10% to 20% recurrence rate.