

WSC 2025-2026
Conference 23, Case 1
Tissue from a dog.

MICROSCOPIC DESCRIPTION: Spinal cord: Within the dorsal funiculi, **(2pt.)** there is diffuse rarefaction **(1pt.)** of the white matter. There is marked dilation of myelin sheaths **(2pt.)**, which are either optically empty**(2pt.)**, contain a normal axon, a swollen axon (spheroid) **(2pt.)**, cellular debris, or a Gitter cell. **(2pt.)** The surrounding white matter is infiltrated by numerous gitter cells, **(2pt.)** which often surround vessels**(2pt.)** (where they are admixed with few lymphocytes and plasma cells.). There is diffuse mild microgliosis within affected areas of white matter. **(2pt.)**

MORPHOLOGIC DIAGNOSIS: Spinal cord, dorsal funiculi: Demyelination **(2pt.)**, diffuse, marked.

NAME THE CONDITION: Sensory neuronopathy **(2pt.)**

O/C: (1pt.)

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Conference 23, Case 2

Tissue from a badger.)

(Not enough points to grade out, but a poorly known virus, so it's worth putting in the WSC.)

MICROSCOPIC DESCRIPTION: Cerebrum (telecephalon): One section of cerebrum is submitted for examination. There is multifocal perivascular cuffing of vessels within the meninges and along Virchow-Robins spaces by low number of lymphocytes and plasma cells. Scattered throughout the gray matter, there are neurons who are swollen with eosinophilic cytoplasm and loss of Nissl substance (degeneration) or are shrunken with pyknotic nuclei (necrosis) and occasionally bordered by one or more glial cells. Rare neurons and glial cells contain an eosinophilic viral inclusion within the nucleus which is surrounded by a clear halo.

MORPHOLOGIC DIAGNOSIS: Cerebrum: Meningoencephalitis, lymphoplasmacytic, diffuse, mild, with neuronal necrosis and gliosis and rare viral intranuclear inclusions.

CAUSE: Badger gammaherpesvirus (Mustelid gammaherpesvirus-1)

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Conference 23, Case 3.

Tissue from a horse.

(Not enough points in this slide to grade out, but a really nice case of this entity.)

MICROSCOPIC DESCRIPTION: Cervical spinal cord: Two sections of cervical spinal cord are submitted for examination and both are similar. Most prominently within the ventral funiculi and to a lesser extent in the lateral funiculi, and only mildly in the dorsal funiculi. there are moderate numbers of dilated myelin sheaths . Dilated myelin sheaths contain a variety of normal-sized axons, dilated swollen axons (spheroids), axonal debris, or vacuolated Gitter cells.

MORPHOLOGIC DIAGNOSIS: Cervical spinal cord, predominantly ventral and lateral funiculi: Axonal degeneration with spheroids and Gitter cells.

CONDITION: Equine cervical myelopathy (“equine wobbler’s syndrome”)

O/C: (1pt.)

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Conference 24, Case 4.

Tissue from a dog.

MICRSCOPIC DESCRIPTION: Cerebrum, thalamus: Within the cerebrum, extending along the meninges (1pt) and compressing the overlying thalamus is an unencapsulated, expansile, densely cellular, well demarcated multilobular neoplasm (1pt) composed of neoplastic cells which assume multiple different morphologies. (1pt). Neoplastic cells are primarily arranged in nests and packets (1pt) on a fine fibrous stroma, (1pt) but also in sheets (1pt) The majority of the neoplasm is composed of nests (1pt) of neoplastic cells are irregularly round with a moderate amount of a finely granular amphophilic to eosinophilic granular cytoplasm with indistinct cell borders (1pt). Nuclei are round, often eccentrically placed, with coarsely stippled chromatin and one to three small basophilic nucleoli. There is moderate anisokaryosis in this population The mitotic rate averages 9 per 400X hpf (1pt). In many areas, these cells transition into a second population (1pt), in which their increased amount of cytoplasm which is more densely eosinophilic and the cytoplasm often contains a single large discrete vacuole (1pt) which peripheralize and compress the nucleus. A third population of cells is scattered among these and forms trabeculae and tubules of cohesive epithelioid cells (1pt) which range from cuboidal to tall columnar with centrally placed nuclei with finely stippled chromatin and occasionally exhibit form acini (1pt). There are multiple dilated vessels contain fibrin thrombi (which occasionally contain neoplastic cells), and hemorrhage within the neoplasm. (1pt) There are multifocal areas of coagulative necrosis scattered throughout the neoplasm. (1pt). At the advancing edge of the neoplasm, the neoplasm fills and expands Virchow Robins spaces, and in areas of compression of the adjacent white matter, there are moderate numbers of dilated myelin sheaths and spheroids (1pt), as well as mild gliosis primarily in compressed gray matter. (1pt).

MORPHOLOGIC DIAGNOSIS: Cerebrum, thalamus: Suprasellar germ cell tumor (4pt)

O/C: (1pt)