WSC 2023-2024
Conference 2, Case 1
Tissue from a dog.

MICROSCOPIC DESCRIPTION: Cerebellum: There is narrowing of the cerebellar folia **(2pt.)** t with decrease in width of the granular **(1pt.)** and molecular layers **(1pt.)** . The granular layer has markedly decreased cellularity **(2pt.)** and numerous mildly swollen axons. Purkinje cells are unevenly spaced, and crowded as well as missing over short distances. **(2pt.)** Purkinje cell cytoplasm **(1pt.)** is often distended by an accumulation of 2um amphophilic to light brown vacuoles **(1pt.)** (lipofuscin granules) **(2pt.)**. Similar granules may be seen in neurons within cerebellar white matter nuclei. **(1pt.)**

MORPHOLOGIC DIAGNOSIS: Cerebellum: Cortical atrophy **(1pt.)**, diffuse, marked, with granular cell degeneration **(1pt.)** and loss and neuronal ceroidosis **(1pt.)**.

NAME THE CONDITION: Ceroid lipofuscinosis. **(3pt.)**

O/C: **(1pt.)**

WSC 2023-2024
Conference 2, Case 2
Tissue from a cat.

MICROSCOPIC DESCRIPTION: Cerebellum: Affecting approximately 80% of the section **(1pt.)**, there is architectural change which resulting in diminished staining of affected regions. Within this area, there is flattening and widening **(1pt.)** of cerebellar folia. In this region, there is marked decrease in the cellularity of the granular **(1pt.)** and Purkinje cell layer **(1pt.)** . Within and expanding the molecular, Purkinje, and granular cell layers, **(1pt.)** there are numerous large angular neurons **(1pt.)** ranging up to 30um in diameter **(1pt.)**. These neurons have indistinct cell borders with abundant finely vacuolated eosinophilic cytoplasm **(1pt.)** and occasionally, large clear cytoplasmic vacuoles **(1pt.)** ranging up to 6-8um. Nuclei are pleomorphic **(1pt.)**with finely stippled chromatin in 2-3 prominent basophilic nucleoli, **(1pt.)**and there are occasional multinucleated cells. **(1pt.)** There is marked spongiosis of the molecular layer **(1pt.)** which extends down into the granular layer and is even more profound within the cerebellar folial white matter. **(1pt.)** The cerebellar white matter contain numerous gemistocytic astrocytes **(1pt.)**as well as dilated myelin sheaths, spheroids **(1pt.)**, and rare myelin sheaths containing Gitter cells and axonal debris.

MORPHOLOGIC DIAGNOSIS : Cerebellum: Dysplastic gangliocytoma. **(3pt.)**

O/C: **(1pt.)**

WSC 2023-2024
Conference 2, Case 3.
Tissue from a dog.

MICROSCOPIC DESCRIPTION: Brainstem: Extending inward from a pigmented section of the leptomeninges (1pt.) and infiltrating the brainstem, is a haphazardly arranged network of meningeal vessels surrounded by a thick layer of loosely packed fibrous connective tissue which ranges up to 150um in thickness.. The fibrous connective tissue is populated by low numbers of quiescent fibroblasts. The encased blood vessels include both veins are small muscular wall arterioles. There are minimal degenerative changes in the adjacent white matter and no

MORPHOLOGIC DIAGNOSIS: Brainstem: Meningioangiomatosis **(5pt.)**

O/C**: (1pt.)**

WSC 2020-2021
Conference 2 Case 4.
Tissue from a cat.

MICROSCOPIC DESCRIPTION: Spinal cord and spinal nerve roots **(1pt)**: Multifocally infiltrating the meninges **(1pt)** and extending along spinal nerves **(1pt)** and Virchow-Robins spaces **(1pt)**, there is an infiltrative, moderately cellular, unencapsulated round cell neoplasm. **(1pt)** The neoplasm is composed of pleomorphic **(1pt)** intermediate to large lymphocytes **(1pt)** arranged in small aggregates along the pre-existing neural stroma. Neoplastic cells are round, with distinct cell borders and moderate amounts of homogenous basophilic cytoplasm. **(1pt)** Nuclei are open faced with finely stippled chromatin and 1-2 small basophilic nuclei. **(1pt)** Anisokaryosis and anisocytosis is moderate and mitoses average 2 per 2.37mm^2 field. **(1pt)** There are numerous dilated myelin sheaths within all funiculi, **(1pt)** with spheroid **(1pt)** formation as well occasional myelin debris and Gitter cells within myelin sheaths. There is diffuse mild microgliosis within the affected white matter. **(1pt)** Similar changes are present within spinal nerve roots. **(1pt)**

MORPHOLOGIC DIAGNOSIS: Spinal cord and spinal nerves: Lymphoma (intermediate to large cell, low-grade). **(5pt)**

O/C: **(1pt)**