

WSC 2023-2024
Conference 21, Case 1
Tissue from a dog.

MICROSCOPIC DESCRIPTION: Presumptive mediastinal mass **(1pt)**: Infiltrating and effacing **(1pt)** the mediastinal fat, there is an unencapsulated, infiltrative, moderately cellular poorly demarcated neoplasm. **(2pt)** Neoplastic epithelial **(1pt)** cells are arranged in nests and packets **(1pt)** on a fine fibrovascular stroma. **(1pt)** Dense bands of fibrous connective tissue traverse the neoplasm. **(1pt)** Neoplastic cells are spindled **(2pt)** and have indistinct cell borders with a moderate amount of finely granular eosinophilic cytoplasm. **(1pt)** Nuclei are ellipotical to suiform with finely stippled chromatin and 2-4 small basophilic nucleoli. **(1pt)** Mitoses are rare. **(1pt)** There are numerous variably sized congested vessels and large areas of hemorrhage **(1pt)** and polymerized fibrin **(1pt)** within the neoplasm. In areas of hemorrhage, there are moderate numbers of siderophages. T-cells are decreased in number and scattered throughout the neoplasm. **(1pt)**

MORPHOLOGIC DIAGNOSIS: Mediastinal mass: Thymoma, type A **(1pt.)**.

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

WSC 2023-2024
Conference 21, Case 2
Tissue from a dog.

MICROSCOPIC DESCRIPTION: Oral mucosa. Two sections of oral mucosa are submitted for examination. One section contains a small segment of the overlying oral mucosa, minor salivary gland tissue, and at the deep margin, skeletal muscle. **(1pt.)** Within the lamina propria and elevating the overlying mildly hyperplastic epithelium, there is an unencapsulated, infiltrative, poorly demarcated moderately cellular neoplasm. **(1pt.)** The neoplasm is composed of polygonal **(1pt.)** and spindle cells **(1pt.)** on a variably dense fibrous stroma. **(1pt.)** Neoplastic cells range regionally from spindled to polygonal (often with a plasmacytoid/osteoblastic appearance) **(1pt.)**, have indistinct cell borders and a moderate amount of basophilic (polygonal cells) to eosinophilic granular cytoplasm. **(1pt.)** Nuclei exhibit marked anisokaryosis and mitoses average 20 per 2.37mm² field. **(1pt.)** Predominantly in areas in which neoplastic cells assume a spindled morphology, up to 20% of neoplastic cells contain brown granular pigment (melanin) **(1pt.)** and there are low numbers of melanophages **(1pt.)** interspersed among them. Throughout the section, both spindled and polygonal cells produce and are enmeshed in small amounts of osteoid **(1pt.)** which coalesce into larger areas of mineralized bone **(1pt.)**, entrapping melanocytes. There are multifocal areas of necrosis containing large numbers of infiltrating neutrophils **(1pt.)**, and areas of sclerosis **(1pt.)** within the neoplasm as well. There is mild lymphocytic inflammation within the salivary glands.

MORPHOLOGIC DIAGNOSIS: Oral mucosa: Osteogenic **(2pt.)** melanoma **(3pt.)**

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

WSC 2023-2024
Conference 21, Case 3.
Tissue from a dog.

MICROSCOPIC DESCRIPTION: Eye: Expanding and occasionally effacing the normal architecture of the iris **(1pt.)**, ciliary body **(1pt.)**, the uvea, and segmentally the choroid **(1pt.)**, there is an infiltrative, unencapsulated, poorly demarcated, densely cellular neoplasm. **(1pt.)** The neoplasm is composed of neoplastic lymphocytes **(1pt.)** in sheets **(1pt.)** on a pre-existent stroma. **(1pt.)** Neoplastic lymphocytes have indistinct cell borders with a moderate amount of vacuolated eosinophilic cytoplasm. **(1pt.)** Nuclei are round with 1-3 basophilic nucleoli. **(1pt.)** There is mild anisokaryosis and mitoses average 18 per 2.37mm² field. **(1pt.)** The cornea is mildly edematous. There is an aggregate of polymerized fibrin and hemorrhage entrapping neoplastic cells within the anterior segment, **(1pt.)** There are pre- and post-iridofibrovascular membranes over the markedly expanded iris. **(1pt.)** The drainage angle is open. There are aggregates of fibrin and hemorrhage in the vitreous and paving of neoplastic cells within the vitreous in the posterior segment. **(1pt.)** There is mild choroidal edema which is more obvious in areas that do not contain neoplastic cells. The retina is detached and there is proteinaceous exudate behind it and the retinal pigmented epithelium is hypertrophic. **(1pt.)** There is moderate atrophy of the ganglion and inner nuclear layer. **(1pt.)**

MORPHOLOGIC DIAGNOSIS: Eye, uvea: Lymphoma, intermediate cell, intermediate grade. **(4pt.)**

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

WSC 2023-2024
Conference 21, Case 4.
Tissue from a dog

MICROSCOPIC DESCRIPTION: Pancreas: Effacing 100% **(1pt)** of normal pancreatic architecture in this section is an infiltrative, unencapsulated, multilobular, well-circumscribed, moderately cellular neoplasm **(2pt)**. Neoplastic epithelial **(1pt)** cells are arranged in well-formed acini **(1pt)** on a moderate fibrovascular stroma **(1pt)**. Neoplastic cells are polygonal to columnar, with moderate amounts of a granular basophilic cytoplasm **(1pt)** with low to moderate numbers of zymogen granules **(1pt)**. Nuclei are basilar, round, with finely stippled chromatin and a single prominent basophilic nucleolus **(1pt)**. Mitoses are rare **(1pt)**. The stroma is expanded by a hyaline eosinophilic material which composes 75% of the section and compresses and replaces the neoplastic cells (2pt) occasionally infiltrating the acini. Within areas of stromal hyalinization, neoplastic cells are occasionally degenerate **(1pt)** (swollen with eosinophilic cytoplasm) or necrotic **(1pt)** (fragmented, with pyknotic to karyorrhectic nuclei). At the periphery of the neoplasm there are variable combinations and concentrations of hemorrhage, fibrin, low to moderate numbers of lymphocytes and plasma cells **(1pt)** and maturing granulation tissue and fibrosis**(1pt)** .

MORPHOLOGIC DIAGNOSIS: Pancreas: Pancreatic exocrine adenocarcinoma **(4 pts.)**, hyalinizing type **(1pt)**

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