

WSC 2025-2026

Conference 25, Case 1

Tissue from a blue-tongued skink.

MICROSCOPIC DESCRIPTION: Colon **(1pt.):** Transmurally **(1pt.)** infiltrating the colon and extending from the ulcerated mucosal surface into the adjacent mesocolon, there is an unencapsulated, infiltrative, multilobular, poorly demarcated neoplasm. **(1pt.)** The neoplasm is composed of polygonal epithelial cells **(1pt.)** which are arranged in acini **(1pt.)**, nests, and trabecula and in some areas, sheets **(1pt.)** on a dense fibrous stroma **(1pt.)**. Neoplastic cells are polygonal **(1pt.)**, with distinct cell borders and a moderate amount of finely granular eosinophilic cytoplasm. **(1pt.)** Centrally within nests of neoplastic cells, neoplastic cells demonstrate keratinization **(1pt.)** (some nests are effaced by lamellated keratin). Nuclei are irregularly round to oval with one to three prominent eosinophilic nuclei. **(1pt.)** Anisocytosis and anisokaryosis are marked **(1pt.)**, and multinucleated forms are common **(1pt.)**. Mitoses average 16 per 2.37 mm² field. The overlying superficial mucosa is ulcerated and replaced by a serocellular crust containing large numbers of viable and degenerate heterophils, hemorrhage, cellular debris, and colonies of opportunistic bacilli. There are multifocal areas of lytic necrosis scattered throughout the neoplasm, and ectopic glands often contain variable combinations and concentrations of necrotic sloughed neoplastic cells, cellular debris, hemorrhage, and degenerate heterophils. There are scattered aggregates of lymphocytes within the stroma. The colonic mucosa is hyperplastic at the edges of the neoplasm.

MORPHOLOGIC DIAGNOSIS: Colon: Adenosquamous carcinoma. **(3pt.)**

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

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Conference 25, Case 2
Tissue from a skunk.

MICROSCOPIC DESCRIPTION: Lung: One section of lung is submitted for examination and there is diffuse consolidation. There are multifocal to coalescing areas of dense hypercellularity which at higher magnifications correspond to the alveolar spaces which are filled or expanded with varying combinations and concentrations of viable and degenerate neutrophils admixed with alveolar macrophages, fewer eosinophils **(1pt.)**, rare multinucleated giant cell macrophages with up to twenty nucleoli (viral syncytia) **(1pt.)** cellular debris, hemorrhage, edema fluid, loosely polymerized fibrin and scattered colonies of cocci and bacilli, which are occasionally mixed. Additionally, within alveoli, there are numerous cross and tangential section of metastrongyle **(1pt.)** nematode larvae **(1pt.)** measuring 10um in diameter with a thin cuticle, lateral alae and numerous somatic nuclei within a pseudocoelom. **(1pt.)** Occasionally multinucleated giant cell macrophages abut/surround nematode larvae. There is multifocal necrosis of alveolar septa **(1pt.)** with loss of differential staining, hemorrhage into alveolar spaces and coalescence of the alveolar lumina of two or more alveoli. Alveolar septa are regionally congested with a circulating neutrophilia, and there is patchy Type II pneumocyte hyperplasia. **(1pt.)** Airway lumina contains refluxed alveolar contents (to include nematode larvae). **(1pt.)** There is diffuse marked hyperplasia of airway epithelium **(1pt.)** with individual cell necrosis of airway epithelium and BALT depletion. **(1pt.)** Airway epithelium, alveolar macrophages and syncytial cells **(1pt.)** contains one or more 2-4um brightly eosinophilic irregularly round intracytoplasmic viral inclusions **(1pt.)** and rare intranuclear viral inclusions. There is mild mesothelial hyperplasia. There are rare megakaryocytes within the septal capillaries.

MORPHOLOGIC DIAGNOSIS: Lung: Pneumonia, bronchointerstitial **(1pt.)**, necrotizing **(1pt.)** and neutrophilic, **(1pt.)** marked, with marked bronchiolar epithelial hyperplasia, viral syncytia **(1pt.)**, numerous intraepithelial and intrahistiocytic intracytoplasmic and intranuclear viral inclusions, and mixed colonies of bacteria. **(1pt.)**

CAUSE: Canine morbillivirus and larval ascarids. **(2pt.)**

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

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Conference 25, Case 3.

Tissue from a Atlantic stingray.

MICROSCOPIC DESCRIPTION: Fin: Multifocally, the hypodermis **(2pt)** is markedly expanded, and the overlying eroded to ulcerated **(1pt)** epidermis **(1pt)** is elevated by multinodular foci of basophilic granular to crystalline mineral **(2pt)** admixed with low to moderate numbers of macrophages **(1pt)**, fewer granulocytes **(1pt)** and multifocal areas of hemorrhage and edema **(2pt)**. Affected areas also have an increase in dense collagen populated by prominent fibroblasts. **(1pt)** In one section, several nodular aggregates of mineral are constrained on the deep margin by skeletal muscle and fin cartilage. The mineral and fibrosis multifocally extends into the underlying skeletal muscle **(1pt)**; in these areas skeletal myofibers are shrunken and hypereosinophilic **(1pt)** (atrophy) **(1pt)**. There is multifocal mineralization of the joint spaces as well. **(2pt)**

MORPHOLOGIC DIAGNOSIS: Fin, hypodermis and joint space: Mineralization **(1pt)**, chronic, multifocal to coalescing, marked, with granulomatous **(1pt)** and granulocytic **(1pt)** inflammation.

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

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Conference 25, Case 4.

Tissue from a crocodile.

MICRSCOPIC DESCRIPTION: Globe: within the posterior chamber, infiltrating the choroid and elevating the overlying degenerate retina, there are numerous well-formed heterophilic granulomas which regional coalesce. Heterophilic granulomas are composed of a central area of brightly eosinophilic cellular debris admixed with numerous degenerate heterophils. This central coagulum is surrounded in turn by a thick layer of epithelioid and foreign body-type macrophages, which is in turn surrounded by lamellations of fibrous connective tissue containing moderate numbers of lymphocytes and plasma cells. Regionally, within the center of the granulomas, embedded in the eosinophilic coagulum are numerous outlines of 3-5um diameter fungal hyphae with parallel walls, dichotomous branching, and occasional septations. The posterior chamber is 66% filled with a coagulum of degenerate heterophils, cellular debris, hemorrhage and fibrin which also contains outlines of fungal hyphae. The granulomas extend to the posterior uvea, infiltrating the caudal aspect of the ciliary body. The lens is normal. The anterior chamber and drainage angle contains abundant hemorrhage and fibrin, and fragments of the degenerate retina. The leaves of the iris are adherent to the back of the cornea (anterior synechiae). Vessels within the choroid and uvea are often surrounded by 3-5 layers of lymphocytes. **(1pt)**

MORPHOLOGIC DIAGNOSIS: Globe: Endophthalmitis, heterophilic and granulomatous, diffuse, severe, with anterior synechiae, retinal detachment and degeneration, with numerous hyphae

ETIOLOGIC DIAGNOSIS: Ocular mycosis **(1pt)**

O/C: (1pt)