

WSC 2025-2026
Conference 7, Case 1
Tissue from a horse.

MICROSCOPIC DESCRIPTION: Suspensory ligament **(1pt.)**: There is diffuse disorganization **(1pt.)** of the ligament - collagen bundles have lost their characteristic linear array and are arranged in haphazardly intersecting variably-sized bundles. **(2pt.)** Collagen bundles are often surrounded and separated by abundant amphophilic to basophilic ground substance **(2pt.)**, and regionally, may be separated by proliferating and tortuous capillaries **(1pt.)**. Collagen bundles vary significantly in size **(1pt.)** and are multifocally hypereosinophilic **(1pt.)**, frayed, split, and fragmented **(1pt.)**. Degenerating collagen bundles are often diffusely and homogenously eosinophilic with a loss of tenocyte (fibroblast) nuclei. There are extensive areas within collagen bundles which are amphophilic to deeply basophilic rather than their normal eosinophilic color **(1pt.)** and these areas multifocally contain chondrocytes **(1pt.)** within lacunae **(1pt.)** (cartilaginous metaplasia) **(1pt.)**.

MORPHOLOGIC DIAGNOSIS: Ligament **(1pt.)**: Degeneration **(2pt.)**, diffuse, marked with vascular proliferation **(1pt.)** and cartilaginous metaplasia **(1pt.)**.

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

WSC 2025-2026
Conference 7, Case 2
Tissue from a piglet.

MICROSCOPIC DESCRIPTION: Ileum: Multiple sections of ileum are submitted for examination (not all changes are present in each section, but they are described here as a group). Villi are mildly to markedly blunted (1pt), often fused, but the mucosal epithelium is intact. The lamina propria. Low to moderate numbers of lymphocytes invade the mucosal epithelium. Lining the villar epithelium (1pt) and extending into the crypts are low to moderate numbers of 3-6um spherical intracytoplasmic (1pt), extracellular (1pt) apicomplexan (1pt) schizonts (1pt) and gamonts (1pt) (cryptosporidia). In another section, epithelial cells contain one of the following apicomplexan life stages: : a single 2-4um basophilic primary meront within the apical epithelium, 6-10um cytoplasmic schizont with up to eight merozoites, and 12-16um micro- and macrogamonts. The Peyer's patches are markedly hypocellular, lack germinal centers, and contain numerous pyknotic lymphocytes admixed with tingible body macrophages and cellular debris. The lamina propria is mildly expanded by an increased population of lymphocytes, macrophages and eosinophils which surround and separate the mildly hyperplastic crypts (which display increased numbers of mitotic figures. Rare crypts are herniated into the underlying Peyer's patches, and/or dilated and contain sloughed epithelium and cellular debris (crypt abscesses.) There is mild multifocal edema of the lamina propria and dilated lacteals and submucosal lymphatics.

Colon: Multiple sections of colon are Multiple sections of ileum are submitted for examination (not all changes are present in each section, but they are described here as a group). There is multifocal mucosal erosion and ulceration, with infiltration of neutrophils admixed with cellular debris within the superficial lamina propria. . Numerous colonic glands are dilated and contain sloughed epithelium and cellular debris (crypt abscesses.) In other areas, crypts are filled with up to 6x8um pyriform to crescent-shaped protozoa with lightly basophilic cytoplasm and a faint nucleus (trichomonads). The lumen of the colon is filled to overflowing with numerous bacilli and rare 70um ciliates with granular, often vacuolated cytoplasm and a prominent hyperchromatic nucleus (*Balantidium coli*). The Peyer's patches are markedly hypocellular, lack germinal centers, and contain numerous pyknotic lymphocytes admixed with tingible body macrophages and cellular debris. The lamina propria is mildly expanded by an increased population of lymphocytes, macrophages and eosinophils

Mesenteric lymph node: Mesenteric lymph nodes are markedly hypocellular, lack germinal centers, and contain numerous pyknotic lymphocytes admixed with tingible body macrophages and cellular debris. The fat in the surrounding mesentery has undergone moderate fat atrophy.

MORPHOLOGIC DIAGNOSIS: 1. Ileum: Villar blunting, diffuse, marked with numerous intracytoplasmic, extracellular apicomplexan schizonts and gamonts consistent with *Cryptosporidium* sp., and intracytoplasmic intracellular apicomplexan meronts, schizonts, and gamonts consistent with coccidiosis.

2. Colon: Colitis, ulcerative, multifocal, mild to moderate with crypt abscesses and intraglandular protozoa.

3. Ileal Peyer's patches and mesenteric lymph nodes: Lymphoid depletion, diffuse, marked, with lymphocytolysis.

WSC 2025-2026
Conference 7, Case 3.
Tissue from a cat.

MICROSCOPIC DESCRIPTION: Lymph node **(1pt.)**: Filling and expanding subcapsular and medullary sinuses **(1pt.)**, compressing and effacing approximately 66% of the nodal arechyma **(1pt.)** is an unencapsulated, moderately cellular, infiltrative, poorly demarcated neoplasm. **(2pt.)** Neoplastic endothelial **(2pt.)** cells are arranged in sheets **(1pt.)** and form small blood-filled channels **(1pt.)** on a fine fibrovascular stroma. **(1pt.)** Neoplastic cells wrap around pre-existent vessels. Neoplastic endothelial cells have indistinct cell borders and a moderate amount of homogenous eosinophilic cytoplasm. **(1pt.)** Nuclei are irregularly round to oval with finely stippled chromatin and a single prominent, eosinophilic nucleolus. **(1pt.)** Anisocytosis and anisokaryosis are marked **(1pt.)**, and there is nuclear pleomorphism. **(1pt.)** Mitoses average 10 per 2.37 mm² field. **(1pt.)** The neoplasm separates and surrounds islands of remnant lymphocyte **(1pt.)**s within all regions of the node, and there is no evidence of germinal centers within islands of cells in the cortex.

MORPHOLOGIC DIAGNOSIS: Lymph node: Hemangiosarcoma **(4pt.)**

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

WSC 2025-2026
Conference 7, Case 4.
Tissue from a dog.

MICROSCOPIC DESCRIPTION: Haired skin: Within the dermis, focally effacing normal architecture, there is an encapsulated, cystic, well-demarcated, expansile neoplasm. **(2pt.)** The neoplasm is composed of anastomosing trabeculae **(1pt.)** and islands **(1pt.)** of neoplastic epithelial **(1pt.)** cells which additionally line the wall of the cyst **(1pt.)** and focally form cystic projections into the lumen. The interface of the neoplasm with the overlying epidermis is not evident in this section, as the most superficial portion of the tumor and the overlying dermis and epidermis has been excised. **(1pt.)** The cellular population resemble basal cells **(1pt.)** which palisade along a basement membrane **(1pt.)** at the periphery, and which keratinize (squamous differentiation) **(1pt.)** in the center of larger islands and trabeculae, as well as along the top of the neoplasm which projects into the cystic lumen. Neoplastic basal cells are columnar within distinct cell borders and a small amount of eosinophilic cytoplasm. **(1pt.)** Neoplastic cells undergoing squamous differentiation have moderate to abundant eosinophilic cytoplasm. **(1pt.)** Nuclei in both populations are irregularly round with coarsely stippled chromatin, and 1-2 basophilic nucleoli. **(1pt.)** Anisocytosis and anisokaryosis is minimal. **(1pt.)** Mitoses are most commonly seen in basal cells and average 7/2.37 mm² fields. **(1pt.)**

MORPHOLOGIC DIAGNOSIS: Basosquamous carcinoma. **(4pt.)**

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