

WSC 2026-2027
Conference 3, Case 1
Tissue from a dog.

MICROSCOPIC DESCRIPTION: Liver: Diffusely, the portal areas **(1pt.)** are markedly expanded and largely effaced by aggregates of large numbers of macrophages **(1pt.)**, mixed with a few multinucleated foreign-body-type macrophages and scattered aggregates of lymphocytes and plasma cells. **(1pt.)** Aggregates of macrophages often bridge adjacent portal areas **(1pt.)** and are also randomly scattered throughout the parenchyma. Macrophages have abundant basophilic cytoplasm **(1pt.)** containing numerous bacilli **(1pt.)** in *bas relief*. At the periphery of macrophage aggregates, hepatocytes are atrophic and compressed. Kupffer cells within remnant hepatic sinusoids are hypertrophic and occasionally contain cytoplasmic bacilli. **(1pt.)** There is scattered oval cell hyperplasia and occasional hyperplastic bile ducts at the periphery of some of the nodules. **(1pt.)** Aggregates of macrophages also surround lymphatics within the subcapsular space and sublobular areas. **(1pt.)**

Spleen (1pt.): One section of spleen is submitted for examination. 90% of splenic parenchyma is replaced **(1pt.)** by coalescing nodules of macrophages with a similar morphology in cytoplasmic bacilli to that seen in the liver. The remnant parenchyma displays chronic congestion with moderate numbers of hemosiderin-laden macrophages. Within remnant parenchyma, there are islands of extramedullary hematopoiesis **(1pt.)** which contain erythroid and myeloid precursors as well as numerous plasma cells **(1pt.)**.

Lymph node (1pt.): One section of lymph node is submitted for examination. Nodal architecture is effaced by an infiltrate of macrophages, as previously described, which has effaced 98% of the node, **(1pt.)** with the exception of a small amount of pre-existing lymphocytes at the extreme nodal periphery under the capsule.

MORPHOLOGIC DIAGNOSIS: 1. Liver: Hepatitis, granulomatous **(1pt.)**, multifocal to coalescing, severe, with numerous intracytoplasmic bacilli. **(1pt.)**
2. Spleen: Splenitis, granulomatous, diffuse, severe, with numerous intracytoplasmic bacilli.. **(1pt.)**
3. Lymph node: Lymphadenitis, granulomatous, diffuse, severe, with numerous intracytoplasmic bacilli.. **(1pt.)**

CAUSE: *Mycobacterium avium* (and related species – any non-tuberculous species OK). **(2pt.)**

WSC 2026-2027
Conference 3, Case 2
Tissue from a meerkat.

MICROSCOPIC DESCRIPTION: Skull and cerebrum: Effacing the meninges **(1pt.)** and infiltrating the overlying calvarium **(1pt.)** and the underlying cerebral gray matter **(1pt.)**, there is an inflammatory nodule, which is composed of innumerable clear acicular **(1pt.)** clefts, (cholesterol clefts) **(1pt.)** admixed with hemorrhage, large numbers of macrophages **(1pt.)** (which in areas of hemorrhage often contain brown hemosiderin granules **(1pt.)**), fewer foreign body-type macrophages **(1pt.)**, and scattered lymphocytes and plasma cells (cholesterol granuloma) **(1pt.)**. At the advancing front of the granuloma, as it infiltrates the neuroparenchyma **(1pt.)**, there is mild spongiosis and gliosis with activation of microglia. **(1pt.)** There are numerous small spicules of resorbing mineralized bone **(1pt.)** within the center of the granuloma. There is remodeling and loss of significant amounts of the calvarial bone **(1pt.)**, with extension of the granuloma into the intertrabecular spaces and focally through the bone into the overlying skeletal muscle. The overlying skeletal muscle appears within normal limits. **(1pt.)**

MORPHOLOGIC DIAGNOSIS: Calvarium, meninges, cerebral gray matter: Cholesterol granuloma. **(5pt.)**

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

WSC 2026-2027
Conference 3, Case 3.
Tissue from a cat.

MICROSCOPIC DESCRIPTION: Liver. There are two distinct pathologic processes within this section of tissue.

Within the remaining hepatic parenchyma, there are numerous occasionally coalescing, variably discrete areas of coagulative and lytic necrosis. **(1pt.)** Areas of necrosis are randomly distributed **(1pt.)**, and involve varying regions of the hepatic lobule as well as the portal areas. **(1pt.)** These areas of necrosis contain abundant hemorrhage, fibrinous and polymerized edema, **(1pt.)** and are multifocally infiltrated by moderate numbers of neutrophils, **(1pt.)** macrophages, and occasional lymphocytes. Within the necrotic areas, there are also macrophages containing abundant granular brown-green pigment. Within these areas, scattered macrophages **(1pt.)** and hepatocytes **(1pt.)** contain cytoplasmic 1-2 μm round apicomplexan zoites. **(1pt.)** Remnant hepatocytes often are arranged in vague nodules and range from a normal morphology to areas of significant compression and atrophy **(1pt.)** with markedly widened sinusoidal spaces. There are rare dilated bile canaliculi within remnant areas of hepatic parenchyma. Unaffected portal areas often contain moderate numbers of lymphocytes and plasma cells which often form aggregates. There is diffuse edema with dilation of portal and sublobular lymphatics. **(1pt.)**

Effacing approximately 5% of the section is an unencapsulated, infiltrative, moderately cellular, multilobular neoplasm. **(1pt.)** The neoplasm is composed of well-differentiated biliary epithelial cells forming tubules on a fine fibrovascular stroma. **(1pt.)** Neoplastic epithelial cells are stratified, columnar to cuboidal, and have indistinct cell borders. **(1pt.)** Nuclei are irregularly round with finely stippled chromatin and one to two small, basophilic nucleoli. Anisocytosis and anisokaryosis are mild, and mitosis is average, two per 2.37 mm^2 field. **(1pt.)** There is multifocal edema and hemorrhage within the neoplastic tubules and stroma, and poorly formed lymphoid aggregates at the periphery. There is a focally extensive area of necrosis within the center of the mass, comprising about 10% of total volume. **(1pt.)**

MORPHOLOGIC DIAGNOSIS: 1. Liver: Hepatitis, necrotizing **(1pt.)**, multifocal to coalescing, marked, with hepatocytic and histiocytic intracellular apicomplexan zoites. **(1pt.)**
2. Liver: Biliary adenoma. **(2pt.)**

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

WSC 2026-2027

Conference 3, Case 4.

Tissue from a dog.

MICROSCOPIC DESCRIPTION: Haired skin: Eight incisional biopsies of haired skin and mucous membrane are submitted for examination, and all are essentially similar. (Feel free to describe one of the other (I am sort of combining the two for expediency's sake – choose the appropriate histologic term for the section you choose to describe.

The lamina propria/superficial dermis **(1pt)** is expanded by a lichenoid **(1pt)** inflammatory infiltrate, which infiltrates the basal layer of the overlying multifocally eroded epidermis **(1pt)**. The inflammatory infiltrate consists of large numbers of macrophages **(2pt)**, ranging up to 15 µm in diameter, with abundant vacuolated cytoplasm. The infiltrate is mixed with low to moderate numbers of neutrophils, **(1pt)** lymphocytes, and plasma cells. Approximately 5% of macrophages contain brown granular melanin pigment within their cytoplasm **(1pt)** (pigmentary incontinence). **(1pt)** Low to moderate numbers of macrophages, neutrophils, and lymphocytes infiltrate the basal layers of the overlying multifocally eroded epidermis. **(1pt)** The proportion of neutrophils within the inflammatory infiltrate, as well as the overlying epidermis, is increased in areas of epidermal erosion/ulceration. **(1pt)**

In areas of epidermal erosion in both mucous membrane and skin samples, there is microvesicle **(1pt)** formation within the stratum corneum and multifocal hyperkeratosis. Serocellular crusts **(1pt)** overlie areas of erosion, which contain abundant hemorrhage, degenerate neutrophils, and cellular debris, lamellar keratin, superficial parakeratotic material, colonies, and hair shaft.

Within samples of haired skin, perifollicular and peri-adnexal infiltrates **(1pt)** of macrophages with fewer lymphocytes and plasma cells are present, as previously described. Apocrine glands are mildly dilated.

MORPHOLOGIC DIAGNOSIS: Haired skin: Dermatitis, histiocytic **(1pt)**, lichenoid **(1pt)**, diffuse, marked with pigmentary incontinence.

2. Mucosal membrane: Mucositis **(1pt)**, histiocytic, lichenoid, diffuse, marked with pigmentary incontinence. **(1pt)**

NAME THE CONDITION: Uveodermatologic syndrome (Vogt-Koyanagi-Harada syndrome)**(2pt.)**

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