

WSC 2025-2026
Conference 11, Case 1
Tissue from a chicken.

MICROSCOPIC DESCRIPTION: Liver: Three sections of liver are submitted for examination. In one section, 66% of the section is effaced by geographic areas **(1pt)** of hepatocellular infarction **(1pt)** and inflammation. Inflammation is centered on large areas of coagulative (and lesser lytic) necrosis, which contain numerous colonies of cocci **(1pt)**, and hemorrhage. These contents are in turn surrounded by a dense band of brightly eosinophilic necrotic heterophils **(1pt)**, and in turn multiple layers of epithelioid macrophages **(1pt)** and foreign body-type macrophages **(1pt)**, and lamellar of loosely arranged collagen which entraps moderate numbers of macrophages, lymphocytes and plasma cells. **(1pt)** Hepatocytes adjacent to areas of necrosis are compressed and moderately atrophic **(1pt)**, and while nuclei are often not visible, the hepatocytes take up vital stains and are presumably still viable. These hepatocytes often contain one or more lipid droplets in their cytoplasm. and sinusoids are dilated in these regions and often contain large number of immature erythroid and myeloid precursors with siderophages (extramedullary hematopoiesis) **(1pt)**. Vessels in these regions often contain fibrinocellular fibrin thrombi, and there are scattered aggregates of polymerized fibrin within the section away from areas of necrosis. **(1pt)** In less affected areas of the liver, there are incipient infarcts with disassociation **(1pt)** of hepatocytes, hepatocellular necrosis, and infiltration of heterophils. There are sinusoidal aggregates of cocci within sinusoids both associated with areas of necrosis and in other areas, demonstrating no cellular reaction (likely postmortem). In all sections, portal areas often contain low to moderate numbers of lymphocytes and plasma cells. **(1pt)**

Spleen: One section of spleen is submitted for examination. Similar geographic heterophilic granulomas surround necrotic splenic parenchyma with numerous colonies of cocci. **(1pt)** The granulomas are poorly walled off as compared to those in the spleen. There is marked hyperplasia of periarteriolar macrophages (Schweiger-Seidel sheaths). **(1pt)**

MORPHOLOGIC DIAGNOSIS: 1. Liver: Hepatitis, necrotizing , heterophilic and granulomatous **(1pt)**, multifocal to coalescing, chronic, severe with numerous cocci. **(1pt)**
2. Liver: Extramedullary hematopoiesis, diffuse, moderate. **(1pt)**
3. Spleen: Splenitis, necrotizing, heterophilic and granulomatous, subacute, multifocal, marked. **(1pt)**

CAUSE: *Enterococcus faecalis* **(2pt)**

WSC 2025-2026
Conference 11, Case 2
Tissue from a chicken.

MICROSCOPIC DESCRIPTION: Liver: Diffusely, sinusoids are ectatic and filled **(2pt.)** with circulating and adherent islands of neoplastic round cells **(2pt.)**. Round cells have distinct cell borders with a moderate amount of homogenous deeply basophilic cytoplasm. **(2pt.)** Nuclei are round with finely stippled chromatin and 1-2 prominent eosinophilic nucleoli. **(2pt.)** Anisocytosis and anisokaryosis is mild, and mitoses are rare. There is widespread cytorrhesis of neoplastic cells within hepatocellular sinusoids **(1pt.)** and Kupffer cells often contain cellular debris **(1pt.)** as well as hemosiderin. **(2pt.)** Circulating erythrocytes are decreased in number **(1pt.)**. Hepatocytes are diffusely decreased in sized (atrophy) and often contain discrete lipid vacuoles. **(1pt.)**

MORPHOLOGIC DIAGNOSIS : Liver: Erythroblastosis. **(3pt.)**

CAUSE: Avian retrovirus **(2pt.)**

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

WSC 2025-2026
Conference 11, Case 3.
Tissue from an ox.

MICROSCOPIC DESCRIPTION: Heart: Two sections of heart are submitted for examination. Throughout the section, arteriolar walls are tortuous **(1pt.)** and their walls are profoundly expanded by a concentric to haphazard arrangement **(1pt.)** of a variety of plump spindle cells to include smooth muscle cells **(1pt.)**, endothelium **(1pt.)**, and most peripherally, fibroblasts **(1pt.)** which are difficult to differentiate on HE. This proliferation results in mural thickening, partial to total luminal occlusion **(1pt.)**, and compression of surrounding cardiomyocytes. Slit-like lumens containing erythrocytes are rarely present between spindle cells. **(1pt.)** Occasionally, The subendothelial space contains hemorrhage, hyaline extruded vascular protein, and lumina occasionally fibrin thrombi. **(1pt.)** There are often aggregates of hemosiderin-laden macrophages outside the ring of proliferating spindle cells. **(1pt.)** Within affected arterioles, there is mural fibroplasia **(1pt.)** and the adventitia is often expanded by rings of fibroblasts and immature collagen **(1pt.)** which compresses adjacent cardiomyocytes. **(1pt.)** Adjacent to clusters of affected arterioles, there is patchy fibrosis of the myocardium and entrapped cardiomyocytes are shrunk and hyalinized (atrophy) with rare loss. **(1pt.)** Cross sections of coronary arteries within the epicardium are unaffected, but there is spindle cell proliferation within vasa vasorum. **(1pt.)** There are several sarcocysts scattered within the myocardium. **(1pt.)**

Skeletal muscle: Similar changes (less the sarcocysts) are present within the skeletal muscle (and all the descriptive points are given to the heart – but if you chose to describe the skeletal muscle, please grade appropriately).

MORPHOLOGIC DIAGNOSIS: Heart and skeletal muscle, arterioles: Atypical endothelial and pericyte proliferation **(1pt.)** (angioendotheliomatosis), diffuse, severe, with mural smooth muscle hyperplasia and mural and adventitial fibrosis. **(1pt.)**

NAME THE CONDITION: Systemic reactive angioendotheliomatosis **(2pt.)**

O/C - (1pt.)

WSC 2025-2026
Conference 11, Case 4.
Tissue from a calf.

MICROSCOPIC DESCRIPTION: Abomasum **(1pt.)**: There is a focally extensive area of full-thickness hemorrhage **(1pt.)** and partial thickness necrosis **(1pt.)** within the mucosa **(1pt.)**. The hemorrhage is acute and located within the lamina propria; it surrounds and occasionally effaces glands. **(1pt.)** Within this area, glandular epithelium is segmentally or circumferentially necrotic **(1pt.)** with hypereosinophilia, nuclear pyknosis, and detachment from the basement membrane and/or adjacent epithelial cells. **(1pt.)** In areas of glandular necrosis, there is multifocal infiltration by low to moderate numbers, occasionally in aggregates, of necrotic and fewer viable neutrophils. **(1pt.)** There is marked submucosal edema. **(1pt.)** Endothelial cells **(1pt.)**, within capillaries in the mucosa **(1pt.)** and more prominently lining larger veins and arterioles within the submucosa **(1pt.)** contain a single oblong eosinophilic **(1pt.)** intranuclear **(1pt.)** viral inclusion **(1pt.)** which enlarges the nucleus and peripheralizes the chromatin.

MORPHOLOGIC DIAGNOSIS: Abomasum: Abomasitis, necrohemorrhagic **(1pt.)**, focally extensive, marked with endothelial intranuclear viral inclusions. **(1pt.)**

CAUSE: Bovine adenovirus **(2pt.)**

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