WSC 2025-2026
Conference 13 Case 1
Tissue from a NZW rabbit.

MICROSCOPIC DESCRIPTION: Liver: One section of liver is submitted for examination. There's diffuse loss of normal sinusoidal architecture **(1pt)** as a result of a combination of hepatocellular swelling **(1pt)** and parenchymal fibrosis **(1pt)**. Within centrilobular and periportal areas **(1pt)**, hepatocytes are swollen up to 30 microns **(1pt)** due to the accumulation of large numbers of clear discrete lipid vacuoles **(1pt)** within their cytoplasm **(1pt)**. Both small (microvesicular) and larger (macrovesicular) and mixed patterns of hepatocellular lipidosis are evident in this section. **(1pt)** Hepatocytes also contain moderate amounts of lipofuscin within their cytoplasm. **(1pt)** Surrounding and separating hepatocytes, and occasionally enmeshed in variable amounts of loosely arranged collagen **(1pt)**, there are numerous stellate cells **(1pt)** within all areas of the hepatic lobule. Sinusoids are variably and assymetrically dilated as a result of fibrosis. Bile canaliculi are multifocally outlined by retained bile. **(1pt)** There is moderate edema **(1pt)** as demonstrated by dilation of lymphatics around sublobular veins. **(1pt)**

MORPHOLOGIC DIAGNOSIS: Liver: Hepatocellular micro- **(1pt)** and macrovesicular **(1pt)** lipidosis **(1pt)**, chronic, diffuse, severe, with marked stellate cell hyperplasia **(1pt)**, and mild fibrosis **(1pt)** and cholestasis. **(1pt)**

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

WSC 2025-2026
Conference 13, Case 2
Tissue from a pig.

MICROSCOPIC DESCRIPTION: Colon **(1pt.)**: There is diffuse partial- and multifocally full-thickness necrosis of the colonic mucosa. There is loss of differential staining but largely maintenance of architecture (coagulative necrosis) **(1pt.)** within the superficial mucosa **(1pt.)**, and lytic necrosis within deeper areas of the mucosa **(1pt.)**, with most of the deep mucosa effaced by large numbers of viable and necrotic neutrophils **(1pt.)** admixed with fewer macrophages and lymphocytes, and abundant cellular debris. There is also multifocal hemorrhage **(1pt.)** and small amounts of polymerized fibrin within the deep mucosa. There are innumerable short bacilli adherent to the necrotic superficial mucosa and admixed with cellular debris in the deep mucosa. **(1pt.)** The necrosis and inflammation, multifocally effaces the muscularis mucosae and extends into the underlying submucosa and submucosal fat. **(1pt.)** There are non-occlusive fibrinocellular thrombi within submucosal vessels. **(1pt.)** Submucosa lymphoid tissue is markedly depleted **(1pt.)** with few tingible body macrophages.

Lymph nodes: Section of colonic lymph nodes are submitted for examination. The lymph nodes are markedly depleted **(1pt.)**, lacking germinal centers and with a markedly diminished paracortex. **(1pt.)** There are aggregates of small numbers of macrophages **(1pt.)** which occasionally contain ingested lymphocytes or cellular debris.

MORPHOLOGIC DIAGNOSIS : 1. Colon: Colitis **(1pt.)**, necrotizing **(1pt.)**, diffuse, severe, with Peyer's patch depletion and numerous extracellular coccobacilli **(1pt.)**.
2. Lymph nodes: Lymphoid depletion, diffuse, severe. **(1pt.)**

CAUSE: *Salmonella typhimurium* (*Brachyspira dysenteriae* or *hampsoni* OK) and PCV-2 **(2pt.)**

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

WSC 2025-2026
Conference 13, Case 3.
Tissue from a bald eagle.

MICROSCOPIC DESCRIPTION: Heart: Sections of both ventricles and the interventricular septum are submitted for examination. Multifocally the myocardium is infiltrated by moderate numbers of macrophages **(1pt.)**, lymphocytes **(1pt.)**, and plasma cells **(1pt.)** and few heterophils **(1pt.)** admixed with small amounts of cellular debris. **(1pt.)** Within areas of infiltration, cardiomyocytes are shrunken **(1pt.)**, hyalinized, hypereosinophilic with loss of cross-striations, fragmented **(1pt.)**, and pyknotic (necrosis). **(2pt.)** There is mild edema **(1pt.)** and small amounts of loosely arranged collagen **(1pt.)** within areas of myocardial necrosis. Within the left ventricle, there is accumulation of large numbers of similar inflammatory cells around a large artery **(1pt.)** which extend into the adjacent myocardium. Scattered throughout the myocardium, there are single cardiomyocytes which are swollen due to accumulation of round 2-3um zoites **(1pt.)** within their cytoplasm. **(1pt.)**

MORPHOLOGIC DIAGNOSIS: 1. Heart: Myocarditis, lymphoplasmacytic **(1pt.)** and histiocytic **(1pt.)**, multifocal, marked with cardiomyocyte necrosis. **(1pt.)**
2. Heart, cardiomyocytes: Protozoal schizonts, multiple. **(1pt.)**

CAUSE: Avian flavivirus (West Nile virus) **(2pt.)**, *Sarcocystis* sp. **(1pt.)**

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

WSC 2025-2026
Conference 13, Case 4.
Tissue from a sandhill crane.

MICROSCOPIC DESCRIPTION: Liver: Six sections of liver are submitted for examination, and all are similar. Scattered randomly **(1pt.)** throughout the hepatic parenchyma there are numerous foci of lytic necrosis **(1pt.)** which range up to 150um **(1pt.)** in diameter. These foci are characterized by hepatocytes which are hypereosinophilic, fragmented and often pyknotic or karyorrhectic (necrosis). **(1pt.)** At the periphery of these foci, hepatocytes are brightly eosinophilic and swollen **(1pt.)** (degeneration) **(1pt.)**. Foci of hepatocellular necrosis are infiltrated by low to moderate numbers of viable and degenerate heterophils **(1pt.)** with fewer macrophages **(1pt.)** and admixed with cellular debris and polymerized fibrin **(2pt.)**, which extends into the adjacent sinusoids and often entrap colonies **(1pt.)** of 1-2 um coccobacilli **(1pt.)**. Similar coccobacilli are scattered throughout the sinusoids in areas without hepatocellular damage as well as within blood vessels **(1pt.)**,. There are multifocal aggregates of extramedullary hematopoiesis adjacent to portal areas. **(1pt.)**

MORPHOLOGIC DIAGNOSIS: Liver: Hepatitis, necrotizing **(2pt.)**, multifocal, marked, with fibrin thrombi **(1pt.)** and numerous colonies of coccobacilli. **(1pt.)**

CAUSE: *Pasteurella multocida* (although other gram negatives are ok, also E. rhusiopathae) **(2pt.)**

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