WSC 2016-2017, Conference 18

Case 1. Tissue from a goat.

MICROSCOPIC DESCRIPTION: Placenta with placentome **(1pt.)** There is diffuse coagulative **(1pt.)** necrosis **(1pt.)** of caruncular tissue with with multifocal mineralization **(1pt.)** of the stroma. There is infiltation of the necrotic placentome along approximately 20% of its circumference **(1pt.)** by variable combinations and concentrations of degenerate neutrophils **(1pt.)** admixed with abundant cellular debris **(1pt.)** and mineral; villi are separated **(1pt.)** by moderate degenerate neutrophils, histiocytes, and abundant ceullar debris. Caruncular stroma is multifocally expanded by moderate amounts of a homogenous waxy eosinophilic material **(1pt.)** amyloid **(2pt.)**. The fibrovascular tissue at the base of the caruncle is expanded by moderate amounts of collagen, plump fibroblasts, infiltrating neutrophils and histiocytes, and moderate amounts of cellular debris, **(1pt.)** which extends down into the chorionic epithelium. **(1pt.)** Multifocally, endometrial glands contain small amounts of necrotic epithelium and cellular debris.

MORPHOLOGIC DIAGNOSIS: 1. Placenta, caruncle: Necrosis (infarction), diffuse, with mineralization. **(3pt.)**

2. Caruncle: Amyloidosis, diffuse, moderate. **(2pt.)**

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

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Case 2. Tissue from a goose.

MICROSCOPIC DESCRIPTION: Small intestine: Moderate autolysis hampers histologic interpretation in this case. There is mild diffuse villar blunting and rare villar fusion. **(1pt.)** Lining epithelium is sloughed due to autolysis, but crypts are dilated **(1pt.)**, with necrosis of crypt epithelium **(1pt.)** and are filled with moderate numbers of degenerate epithelium and cellular debris **(1pt.)** (crypt abscesses) **(2pt.)**. The necrotic villi is covered with a layer of eosinophilic cellular debris admixed with numerous mixed colonies of bacilli. **(1pt.)**

Pancreas: There are multifocal areas of coagulative necrosis **(1pt.)** scattered randomly throughout the parenchyma which are infiltrated by low numbers of heterophils **(1pt.)** and cellular debris and edema. There are moderate numbers of apoptotic epithelial cells which give the section a "starry-sky" appearance. **(1pt.)**

MORPHOLOGIC DIAGNOSIS: 1. Small intestine: Enteritis, necrotizing, diffuse, severe, with crypt abscesses. **(3pt.)**

2. Pancreas: Pancreatitis, necrotizing, random, multifocal, mild. **(3pt.)**

Cause: Avian flavivirus (West Nile virus((*C perfringens – necrotic enteritis of geese,* highly pathogenic avian influenza, and anatid herpesvirus-1 OK) **(3pt.)**

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

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Case 3. Tissue from an ox.

(Not really a good descriptive slide – your time is better spent elsewhere. There are not enough points available to make a key.)

MICROSCOPIC DESCRIPTION: Cerebrum: There is diffuse moderate congestion of capillaries, and more capillaries are visible throughout the parenchyma than is normal. .Diffusely, within capillaries erythrocytes contain one or two small 1um blue apicomplexan parasites. Multifocally, capillaries are occluded by fibrin thrombi.

MORPHOLOGIC DIAGNOSIS: Erythrocytes: Intracytoplasmic apicomplexan parasites, numerous.

CAUSE: *Babesia bovis*

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CASE 4. Tissue from a cat.

MICROSCOPIC DESCRIPTION: Lung. Diffusely, airway epithelium of larger and smaller airways **(1pt.)** is segmentally to diffusely necrotic **(1pt.)** and sloughed ito the lumen **(1pt.)** (or missing entirely). There is markedly type II pneumocyte hyperplasia **(2pt.)** at the distal end of smaller airways, often lining peribronchial alveoli **(1pt.)**. There is diffuse expansion **(1pt.)** of alveolar septa by congestion **(1pt.)**, edema **(1pt.)** and fibrin, occasional hemorrhage,, and patchy Type II pneumocyte hyperplasia **(1pt.)**. Alveolar spaces contain varying combinations and concentrations (never exceeding moderate levels) of alveolar macrophages **(1pt.)**, neutrophils **(1pt.)**, fibrin strands **(1pt.)**, and cellular debris, as well as sloughed airway epithelium.

MORPHOLOGIC DIAGNOSIS: Lung: Pneumonia, bronchointerstitial **(1pt.)**, fibrinous, acute **(1pt.)**, diffuse, moderate, with marked peribronchiolar type II pneumocyte hyperplasia **(1pt.)**.

CAUSE: Mammalian paramyxovirus (influenza virus) **(3pt.)**

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