

WSC 2017-2018

Conference 24 Case 1.

Tissue from a zebrafish.

(There are multiple sections of the slide – your description depends on which transverse section you describe.)

MICROSCOPIC DESCRIPTION: Coelomic cavity – Multifocally within the coelomic cavity, separating viscera and infiltrating the ovary **(1pt.)** and pancreas, there is an unencapsulated, infiltrative, moderately cellular neoplasm **(1pt.)**. Neoplastic cells are arranged in short streams and bundles **(1pt.)** on a fine collagenous matrix **(1pt.)**. Cell borders are indistinct, neoplastic cells have a moderate amount of a finely vacuolated eosinophilic cytoplasm. **(1pt.)** Nuclei are oval to spindle with finely clumped chromatin and indistinct nucleoli. **(1pt.)** There is mild anisokaryosis and anisocytosis. **(1pt.)** Mitotic figures average 10 per 10 400 X fields (2.37 mm²).**(1pt.)** Multifocally, there are large areas of necrosis scattered through the tumor. **(1pt.)** The neoplasm is infiltrated by low to moderate numbers of granulocytes. **(1pt.)** Scattered through the omentum and occasionally within the kidney rare granulomas **(1pt.)** centered on granular eosinophilic debris, and composed of 3-5 layers of epithelioid macrophages and concentrically placed lamellae of collagen. Scattered throughout the omentum, there are aggregates of macrophages with brownish vacuolated cytoplasm (fat necrosis). **(1pt.)** Scattered throughout the skeletal muscles, there are multifocal individual rhabdomyocytes which are shrunken and infiltrated by few macrophages (necrosis). **(1pt.)**

MORPHOLOGIC DIAGNOSES: 1. Coelomic cavity, omentum, ovary, pancreas: Peripheral nerve sheath tumor. **(4pt.)**

2. Omentum: Granulomas, multiple.. **(1pt.)**

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

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Conference 22 Case 2.
Tissue from a tilapia.

MICROSCOPIC DESCRIPTION: Gill: There is multifocal blunting and fusion of secondary lamellae **(1pt.)** with accompanying marked hyperplasia gill epithelium. **(1pt.)** There are multifocal necrotic single cells within the hyperplastic gill epithelium **(1pt.)** as well as a moderate increase in the number of mucus cells. **(1pt.)** Within the hyperplastic epithelium, there are numerous round protozoal cysts **(1pt.)** measuring up to 200um with a 2 μ thick hyaline wall **(1pt.)**, abundant finely granular to vacuolated basophilic cytoplasm which contains numerous host erythrocytes, and a 30 x 100 μ crescent shaped deeply basophilic macro nucleolus (trophont.) **(2pt.)** There is multifocal hyperplasia of the epithelium lining the pharynx **(1pt.)** (and single cell necrosis) as well as the epidermis lining the exterior surface of the scales, and that lining the exterior scales, and trophonts are embedded in this as well. **(1pt.)** Adjacent to gills, there are a number of saucer-shaped 50um ciliates **(1pt.)** (Trichodina), as well as stacks of 1x6 filamentous bacilli **(1pt.)**.

MORPHOLOGIC DIAGNOSIS: 1. Gill: Epithelial hyperplasia, blunting of secondary lamellae and numerous embedded protozoal cysts (trophonts). **(2pt.)**
2. Pharynx, skin: Epithelial hyperplasia, multifocal, moderate to marked, with numerous embedded protozoal cysts (trophonts) **(1pt.)**
3. Filamentous bacilli, focal, numerous.
4. Trichonids, numerous.

CAUSE: *Ichthyophthirius multifiliis* **(2pt.)**, *Flexibacter columnare* **(1pt.)**, *Trichodina sp.* **(1pt.)**

O/C: (1pt.)

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Conference 24, Case 3.

Tissue from a chameleon.

MICROSCOPIC DESCRIPTION: Liver: There is diffuse loss of sinusoidal architecture **(1pt.)** with individuallization of hepatocytes.. Distributed randomly **(1pt.)** throughout the section, there are multifocal to coalescing areas of lytic**(1pt.)** hepatocellular necrosis **(1pt.)**, which are composed largely of eosinophilic cellular debris **(1pt.)**, as well as melanin pigment **(1pt.)** liberated from necrotic melanomacrophages. At the periphery of these areas of necrosis of hepatocytes are variably shrunken with pyknotic nuclei (necrosis), or swollen with granular eosinophilic cytoplasm, occasional lipid vacuoles, and nuclei with peripheral lysed chromatin (degeneration). Throughout the remainder of the tissue, there is necrosis **(1pt.)** of individual or small groups of hepatocytes and degenerative changes as previously described **(1pt.)**. Hepatocytes often contain one or more round basophilic 2 to 8 μ intracytoplasmic viral inclusions **(1pt.)**. Similar inclusions are also seen within biliary epithelium **(1pt.)**, and biliary epithelium is rarely and individually necrotic. Rarely throughout the section, within sinusoids, are aggregates of 2-4 μ bacilli **(1pt.)**

MORPHOLOGIC DIAGNOSES: Liver: Hepatitis, necrotizing **(1pt.)**, multifocal to coalescing, severe, with numerous hepatocellular **(1pt.)** and biliary **(1pt.)** intracytoplasmic viral inclusions. **(1pt.)**

CAUSE: Ranavirus **(3pt.)**

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

WSC 2017-2018
Conference 24 Case 4.
Tissue from a turtle.

MICROSCOPIC DESCRIPTION: Haired skin, subcutis: Ovary **(1pt.)**: Within the ovary, separating follicles, there is an infiltrative unencapsulated moderately cellular well demarcated neoplasm **(2pt.)** . The neoplasm is composed of nests and packets **(1pt.)** of polygonal cells **(1pt.)** which are separated by a fine fibrovascular stroma **(1pt.)**. Neoplastic cells have indistinct cell borders with a moderate amount of granular basophilic cytoplasm which often contains red granules **(1pt.)** , which are collected in a perinuclear position in 1 section of the cell (presumptive Golgi) nuclei are round, often centrally placed, with finely stippled chromatin and 1-2 eosinophilic nucleoli. **(2pt.)** There is mild anisokaryosis and anisocytosis **(1pt.)**, and occasional multinucleated cells. **(1pt.)** Mitoses average 20 per 10 high powered fields (2.37 mm²) **(1pt.)**. There is abundant single cell necrosis scattered throughout the neoplasm, as well as small foci of necrosis ranging up to 40um. **(1pt.)** The remaining ovary contains numerous follicles in all levels of maturity and yolk production, there is rare lymphocytic infiltrates within atretic or degenerate follicles. **(1pt.)**

MORPHOLOGIC DIAGNOSIS: Ovary: Dysgerminoma **(5pt.)**.

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