

WSC 2009-2010. Conference 12, Case 1.

Tissue from a ferret.

MORPHOLOGIC DESCRIPTION: Esophagus: Within the esophageal wall, infiltrating the serosa/adventitia (**1 pt.**), muscularis (**2 pt.**), and the submucosa (**2 pt.**), there are large numbers of viable (**1 pt.**) neutrophils (**1 pt.**) admixed with lesser number of macrophages (**1 pt.**), rare lymphocytes and plasma cells (**1 pt.**) and cellular debris. The serosa/adventitia is additionally expanded by granulation tissue (**1 pt.**) and scattered dense aggregates of neutrophils. Within the muscularis, the neutrophils surround and occasionally replace rhabdomyocytes. Remaining myofibers are decreased in size (**2 pt.**) and satellite nuclei are prominent (**1 pt.**). Granulation tissue also expands the submucosa (**1 pt.**) in addition to the cellular infiltrate, and low to moderate numbers of lymphocytes and plasma cells surround and separate submucosal glands.

Organization and clarity: (**1 pt.**)

MORPHOLOGIC DIAGNOSIS: Esophagus; submucosa, muscularis, and serosa: Esophagitis, neutrophilic, chronic diffuse, severe, with granulation tissue. (**3 pt.**)

Name the condition: Myofasciitis (disseminated idiopathic myositis) (**2 pt.**)

WSC 2009-2010. Conference 12, Case 2.

Tissue from a ferret.

MORPHOLOGIC DESCRIPTION: Liver: Diffusely, hepatic ducts (**1 pt.**) are markedly thickened, tortuous (**1 pt.**), and dilated (**1 pt.**) Hepatic ducts are surrounded by numerous circumferential layers of collagen (profound fibrosis) (**1 pt.**), plump fibroblasts, and large numbers of lymphocytes and plasma cells (**1 pt.**), with lesser numbers of viable neutrophils and macrophages (**1 pt.**). There is also marked fibrosis of the connective tissue surrounding the hepatic ducts and lymphatics in this area are markedly dilated (edema). The lining epithelium is hypertrophic and occasionally piles up to two or three cell layers (hyperplastic.) (**1 pt.**) Mitotic figures are increased within this population. Numerous epithelial cells contain apicomplexan schizonts (**1 pt.**) which contain up to a dozen banana-shaped zoites (**1 pt.**) measuring up to 2x4um. Lesser numbers of epithelial cells contain either eosinophilic, uninucleated macrogamonts, or microgametes (**1 pt.**). Within the lumen, numerous viable and degenerate neutrophils are admixed with lesser numbers of macrophages, degenerate epithelial cells, cellular debris and 15-20um wide coccidial oocysts (**1 pt.**) with an angular thin brown refractile wall, on a light blue mucinous matrix. There is rare hemorrhage into bile ducts. Similar changes are present within epithelium and lumina of smaller biliary ductules (**1 pt.**). Portal areas throughout the sections are also prominently expanded by marked biliary reduplication (**1 pt.**), mature collagen and hypertrophic fibroblasts which surround and separate biliary profiles, and moderate numbers of lymphocytes and plasma cells. There is abundant EMH (**1 pt.**) scattered (immature granulocytes, erythrocytes and rare megakaryocytes) throughout hepatic sinusoids.

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

MORPHOLOGIC DIAGNOSIS: Liver, biliary tract: Cholangitis and pericholangitis, chronic, neutrophilic and lymphoplasmacytic, with marked biliary hyperplasia, and numerous intraepithelial apicomplexan schizonts and gametes, and intraluminal apicomplexan oocysts. (**3 pt.**)

CAUSE: *Eimeria* – (**2 pt.**) (don't necessarily have to know *furonis* or *ictaluri*)

WSC 2009-2010. Conference 12, Case 3.

Tissue from a ferret.

MORPHOLOGIC DESCRIPTION: Haired skin. Within the dermis, elevating the overlying epidermis and extending to the panniculus carnosus (**1 pt.**) is an unencapsulated, infiltrative(**1 pt.**), well-demarcated, moderately cellular neoplasm. The neoplasm is composed of robust spindle cells (**1 pt.**) arranged in streams and bundles (**1 pt.**) on a fine fibrovascular matrix (**1 pt.**). Neoplastic cells have a moderate amount of finely fibrillary eosinophilic cytoplasm with indistinct cell borders (**1 pt.**). Nuclei are oval to elongate with blunt ends (**1 pt.**), and contain moderately clumped chromatin and one to two prominent eosinophilic nucleoli (**1 pt.**) which are often surrounded by a clear halo. Mitotic figures average 1/40x field. (**1 pt.**) Scattered throughout and adjacent to the neoplasm are aggregates of low to moderate numbers of lymphocytes and plasma cells (**1 pt.**). Multifocally, the mass surrounds hair shafts or degenerating hair follicles. Degenerating hair follicles are characterized by loss of the root sheath and extruded hair shafts within the dermis with are surrounded by low to moderate numbers of neutrophils (**1 pt.**), macrophages, foreign body giant cells (**1 pt.**), lymphocytes, and cellular debris (furunculosis) (**1 pt.**). There is mild atrophy of the hair follicles overlying the neoplasm, and follicles are in telogen (**1 pt.**). There is mild superficial dermal edema, small numbers of lymphocytes scattered within the superficial skin, and minimal parakeratotic hyperkeratosis. (**1 pt.**)

MORPHOLOGIC DIAGNOSIS: Haired skin: (Pilo)leiomyosarcoma, low-grade. (**4 pt.**)

Organization and clarity: (**1 pt.**)

WSC 2009-2010. Conference 12, Case 4.

Tissue from a horse.

MORPHOLOGIC DESCRIPTION: Liver: There is diffuse hepatocellular degeneration (**1 pt.**), necrosis (**2 pt.**) and loss (**1 pt.**) affecting all parts of the hepatocytic lobule (massive necrosis) (**1 pt.**), but most severe in centrilobular and midzonal regions (**1 pt.**). Within these areas, there is effacement of hepatic plate architecture (**1 pt.**), large areas of hepatocellular loss, with replacement by red blood cells (hemorrhage) (**1 pt.**), and infiltration by low numbers of neutrophils. Remaining hepatocytes in periportal areas are swollen, deeply eosinophilic, and contain large clear to translucent cytoplasmic vacuoles (**1 pt.**). Rarely bile canaliculi are distended (cholestasis) (**1 pt.**) and Kupffer cells often contain a brown granular pigment (bile or hemosiderin, or both.) (**1 pt.**) There is mild reduplication of bile ductules. (**1 pt.**)

MORPHOLOGIC DIAGNOSIS: Liver: Degeneration ecrosis, massive, diffuse, severe, with intrahepatic cholestasis and hemorrhage. (**4 pt.**)

NAME THE CONDITION: Theiler's disease (**2pt.**)

NAME A PREDISPOSING EVENT: Inoculation with a xenobiotic, usually of equine origin (**1 pt.**)

Organization and clarity: (**1 pt.**)