

rhWSC 2021-2022 Conference 1, Case 1
Tissue from a dog.

MICROSCOPIC DESCRIPTION: Liver: There is diffuse **(1pt.)** massive **(2 pt.)** necrosis of hepatocytes throughout the section. In all sections of the hepatic lobule, there is dissolution of hepatic cords, with disassociation **(1pt.)**, individualization and rounding up of hepatocytes. **(1 pt.)** Hepatocytes are hypereosinophilic with vacuolated cytoplasm **(1pt.)**, mildly shrunken, and contain either karyolytic or pyknotic nuclei or lack nuclei **(1 pt.)**. In some lobules, periportal hepatocytes remain viable **(1pt.)**. Primarily at the periphery of the sections, areas of necrosis also contain acute hemorrhage **(1pt.)**; these areas are also infiltrated by moderate numbers of macrophages and fewer neutrophils which contain cytoplasmic debris. **(1pt.)** Portal areas are expanded by loosely arranged collagen and edema **(1pt.)** and contain low numbers of lymphocytes, and fewer macrophages, **(1 pt.)** and there is mild diffuse biliary hyperplasia **(1 pt.)**. Sublobular, portal, and subcapsular lymphatics are dilated (edema). **(1pt.)**

MORPHOLOGIC DIAGNOSIS: Liver, hepatocytes: Necrosis **(1pt.)**, massive **(1pt.)**, diffuse, acute, with hemorrhage and stromal collapse **(1pt.)**.

NAME THREE POSSIBLE CAUSES: Amanitin, microcystin, imidocarb, xylitol, acetaminophen toxicosis, mebendazole **(2 pt.)**

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

WSC 2021-2022 Conference 1, Case 2

Tissue from a calf.

(Not many changes here – not worth scoring out. Just note the changes and move on.)

Small intestine: Diffusely, the apical **(1pt)** cytoplasm of villar enterocytes is swollen **(1pt)** by one or more clear vacuoles **(2pt)** (lipid) **(2pt)** which are most prominent at the villar tips **(2pt)**. There is no concurrent evidence of cellular degeneration or necrosis in affected enterocytes. **(1pt)** In many villi, the enterocytes are separated from the underlying lamina propria by coalescing large clear vacuoles **(2pt)**, and villar lacteals are often dilated (edema) **(1pt)**. Crypt epithelium does not appear affected. **(1pt)** There is moderate lymphatic dilation transmurally **(1pt)**, and mild atrophy of serosal fat. **(1pt)**

MORPHOLOGIC DIAGNOSIS: Small intestine, villar enterocytes: Lipidosis, diffuse, marked, with mild diffuse edema. **(3pt)**

Name the condition: Cholesterol deficiency **(1pt)**

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

WSC 2021-2022, Conference 1, Case 3.
Tissue from a sheep.

MICROSCOPIC DESCRIPTION:

Pancreas: Throughout the section, and in a predominantly lobular fashion **(1pt.)**, there is necrosis, loss and atrophy of pancreatic acinar **(1pt.)** tissue. Within affected lobules, there is loss of acinar architecture **(1pt.)**. Acinar cells demonstrate variable degrees of a range of morphologic changes to include shrinkage **(1pt.)** and loss of zymogen granules **(1pt.)** with decreased acinar diameter and nuclear crowding (degeneration/atrophy) **(1pt.)**, individualization, nuclear pyknosis and sloughing into the lumen (necrosis) **(1pt.)**, aggregates of eosinophilic crystalline mineral within lumina, and lining of acini with attenuated eosinophilic cuboidal epithelium with a markedly enlarged lumen (regeneration) **(1pt.)**. In some lobules, there is infiltration of the interstitium with viable and degenerate neutrophils **(1pt.)**, which occasionally infiltrate the lumen of necrotic/regenerating acini. In severely affected lobules, there is total loss of acinar tissue, with only ducts remaining. **(2pt.)** Ducts are lined by a thin layer of attenuated epithelium **(1pt.)**, and separated by loosely arranged fibrous connective **(1pt.)**tissue populated by numerous fibroblasts and scattered interstitial lymphocytes, with fewer plasma cells and neutrophils. The connective tissue septa surrounding affected lobules is also expanded by similar increases in fibrous connective tissue, edema, multifocal hemorrhage, and low numbers of lymphocytes and plasma cells. **(1pt.)**

MORPHOLOGIC DIAGNOSIS: Pancreas, acinar tissue: Degeneration **(1pt.)**, necrosis **(1pt.)**, and regeneration **(1pt.)**, lobular, multifocal, marked.

CAUSE: Zinc toxicosis **(2pt.)**

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

WSC 2020-2021
Conference 1 Case 4.
Tissue from a cat.

(Once again, not a great descriptive slide, but a common and important lesion that everyone should be able to recognize.

MICROSCOPIC DESCRIPTION: Liver: Diffuse throughout the section, biliary ductules **(2pt)** are markedly ectatic **(2pt)** up to 4mm **(1pt)** in diameter. Cysts are lined by a thin single layer of flattened biliary epithelium **(1pt)** and contain small amounts of a pink proteinaceous fluid **(1pt)**. Cysts are separated by septa of mature collagen **(2pt)** and fibroblasts which occasionally contain islands of viable hepatocytes **(1pt)**. Entrapped islands of hepatocytes contain variably dilated to peliotic sinusoids **(1pt)**, lack portal areas, and Kupffer cells often contain hemosiderin pigment. **(1pt)** Occasionally aggregates of low to moderate numbers of lymphocytes are scattered throughout the fibrous septa between dilated ductules. **(2pt)**

MORPHOLOGIC DIAGNOSIS: Liver: von Meyenburg's complex (biliary hamartoma OK) **(5pt)**

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