WSC 2022-2023
Conference 13, Case 1
Tissue from a goat.

MICROSCOPIC DESCRIPTION: Liver: Three sections of liver are present on the slide. Changes are similar in each slide but vary with severity. Diffusely, centrilobular and midzonal hepatocytes are rounded up, individualized **(1pt)**, have granular eosinophilic cytoplasm with decreased stain affinity, and pyknotic to karyorrhectic nuclei **(1pt)** (necrosis) **(1pt)**. There is diffuse severe centrilobular hemorrhage **(1pt)** with stromal collapse **(1pt)**. In more severely affected section, this change affects all areas of the lobule (massive necrosis) **(1pt)**. Hepatocellular necrosis results in a mildly undulant hepatic capsule. **(1pt)**. Within periportal areas of the lobule, hepatocytes are swollen **(1pt)** with granular cytoplasm, numerous poorly demarcated clear vacuoles **(1pt)**, and occasional cytosegresomes **(1pt)** (degeneration) **(1pt)**, and rarely, apoptotic hepatocytes **(1pt)** are present within this region as well. There are numerous macrophages containing abundant granular brown pigment (siderophages) in all areas of the lobule. Epithelial cells lining bile ducts are mildly hyperplastic, and large bile ducts are often surrounded by several layers of fibrous connective tissue **(1pt)**. There is mild hyperplasia of bipotential progenitor cells as well as ductular reaction within portal triads **(1pt)**.

MORPHOLOGIC DIAGNOSIS: Liver: Necrosis **(1pt)**, massive **(1pt)**, acute, with hemorrhage and stromal collapse. **(1pt)** (NOTE: The morphologic diagnosis for the most severely affected slide is the most appropriate one.)

CAUSE: Poison peach (cocklebur, cycads, many others OK) **(1pt)**

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

WSC 2022-2023
Conference 13, Case 2
Tissue from an ox.

MICROSCOPIC DESCRIPTION**:** Liver: There is diffuse **(1pt)** and irregular enlargement of hepatocytes with loss of normal hepatocellular plate architecture **(1pt)**. Hepatocytes are range up to 50 um in diameter (megalocytosis) **(1pt)** and compress adjacent sinusoids. Hepatocytes often contain abundant pale, lacy, finely vacuolated cytoplasm **(1pt)** or one or more discrete, clear vacuoles **(1pt)** that peripheralize the nucleus (lipidosis) **(1pt)**, or both. Hepatocytes have large, vesiculate nuclei **(1pt)** with 1-3 prominent nucleoli, and hepatocytes are frequently multinucleated **(1pt)**. Bile canaliculi are frequently and prominent dilated by bile **(1pt)**. Periportal connective tissue is expanded by disordered fibrosis **(1pt)**, low to moderate numbers of lymphocyte and plasma cells **(1pt)** and numerous profiles of bile ducts (ductular reaction) **(1pt)**. Biliary epithelium is mildly hypertrophic **(1pt)** with vacuolated cytoplasm and visible bile with their lumina.

MORPHOLOGIC DIAGNOSIS: Liver: Hepatocellular megalocytosis **(1pt)** and vacuolation **(1pt)**, diffuse, severe, with marked hepatocellular lipidosis **(1pt)**, biliary hyperplasia, and cholestasis. **(1pt)**

CAUSE: *Lantana* sp. **(2pt)**

O/C: (1pt)

WSC 2022-2023
Conference 12, Case 3
Tissue from a dog.

MICROSCOPIC DESCRIPTION: Liver: There is a diffuse loss of normal hepatocellular plate architecture **(1pt.)**, with hepatic plates ranging up to plates ranging up to 6 cells thick **(2pt.)** admixed with solid sheets of hepatocytes **(2pt.)**. There is moderate anisokaryosis , and vesicular nuclei **(2pt.)** and multifocal hepatocellular lipidosis **(2pt.)**. Bile canaliculi are often distended **(2pt.)** (cholestasis) **(1pt.)**. Portal areas are reduced in number **(2pt.)**, haphazardly placed, and bile ducts are absent **(2pt.)**. Portal areas contain tortuous arteriolar branches. **(2pt.)**

MORPHOLOGIC DIAGNOSIS: Liver: Biliary agenesis **(1pt.)**

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

WSC 2022-2023
Conference 13, Case 4.
Tissue from a hamster.

MICROSCOPIC DESCRIPTION: Liver: Multifocally and primarily at the periphery of the section , clusters of biliary ductules **(1pt)** and bile ducts **(1pt)** are ectatic **(1pt)** (up to 6mmm). Ectatic bile ducts are lined by columnar epithelium **(1pt)**, which in some areas forms papillary and micropapillary projections **(1pt)** into the lumen and cover an edematous and hemorrhagic and collagenous core containing few lymphocytes and plasma cells. **(1pt)** Ectatic bile ducts contain abundant pink proteinaceous secretory product. **(1pt)** At this edge of the section, ectatic bile ducts are separated by dense bands of fibrous connective tissue which contain few entrapped hepatocytes, proliferating bile ducts, and small numbers of lymphocytes and plasma cells. **(1pt)** At several edges **(1pt)** of the section, the subcapsular parenchyma is replaced by numerous small biliary ductules of variable maturity **(1pt)** (some have lumina, some don't.), resembling a von Meyenburg complex. **(1pt)** The biliary epithelium rarely exhibits mitotic figures. Throughout the section, there is bridging fibrosis **(1pt)** between portal areas with proliferation of bile ducts (biliary hyperplasia) **(1pt)**. Portal lymphatics, sublobular lymphatics, and rare subcapsular lymphatics are mildly to markedly dilated (edema).**(1pt)**

MORPHOLOGIC DIAGNOSIS: Liver, bile ductules and ducts: Ectasia **(1pt)**, multifocal, moderate to marked, with bridging portal fibrosis **(1pt)** and biliary hyperplasia **(1pt)**.

NAME TWO OTHER AFFECTED ORGANS: Kidney, pancreas, epididymis **(2pt)**

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