

WSC 2021-2022

Conference 24, Case 1.

Tissue from a dog.

MICROSCOPIC DESCRIPTION: Placenta **(1pt)**: A section of placenta with placental labyrinth, marginal hematoma, and chorioallantois is submitted for examination. There is mild autolysis and adherent plant material. At the edge of the placental labyrinth (placental villi), within the marginal hematoma **(1pt)** there are aggregates of amorphous proteaceous material **(1pt)** containing hemorrhage, fibrin **(1pt)**, cellular debris **(1pt)** and hematoidin pigment. Within the amorphous debris, and within the immediately adjacent placental villi, trophoblasts **(2pt)** are expanded by numerous 2-3um intracytoplasmic bacilli **(2pt)**. Sloughed and faded trophoblasts are within the cellular debris within the marginal hematoma. There is segmental loss of epithelium along some of the villi, **(1pt)** with few remnant bacilli-laden trophoblasts, and a lining of pyknotic degenerate trophoblasts with an infiltrate of low numbers of neutrophils admixed with cellular debris. The adjacent chorioallantois contains few infiltrating bacilli-laden trophoblasts **(1pt)** as well as low numbers of infiltrating neutrophils and cellular debris. **(1pt)**. Bacilli are also present lining the walls of vessels within the chorionic alh here are aggregates of low numbers of lymphocytes and fewer macrophages around vessels scattered regionally within the adjacent allantois. **(1pt)**

MORPHOLOGIC DIAGNOSIS: Placenta at edge of marginal hematoma: Placentitis **(1pt)**, necrotizing **(1pt)**, multifocal to coalescing, mild, with mild chorioallantoic vasculitis intratrophoblastic bacilli. **(1pt)**

CAUSE: *Campylobacter jejuni* **(3pt)**

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

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Conference 24, Case 2.

Tissue from a calf.

MICROSCOPIC DESCRIPTION: Lung: Diffusely in all lobules **(1pt)** of the submitted section of lung, the interstitium **(1pt)** is hypercellular and expanded by variable combinations and concentrations of macrophages **(1pt)**, , fewer neutrophils **(1pt)**, lymphocytes, hemorrhage, fibrin **(1pt)**, edema and small amounts of cellular debris **(1pt)**. Alveolar septa are segmentally lined by type 2 pneumocytes. **(2pt)** Alveolar spaces are often clear **(1pt)**; there is scattered mild exudates of fibrin admixed with neutrophils and foamy alveolar macrophages and cellular debris in some areas. **(2pt)** There is marked hyperplasia of bronchiolar associated lymphoid tissue **(2p)** with scattered lymphocytolysis. Interstitial tissue is also expanded by inflammatory and cellular and noncellular components of inflammation previously described. **(2pt)** There are occasional squames within airways and rarely within alveoli. **(1pt)**

MORPHOLOGIC DIAGNOSIS: Lung: Pneumonia, interstitial **(1pt)**, histiocytic, with marked BAL hyperplasia **(1pt)**.

CAUSE: *Ureaplasma* sp. **(1pt)** (This is a difficult one to get to from these subtle lesions. I would probably give points for many components of the Bovine Respiratory Disease Complex)

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

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Conference 24, Case 3

Tissue from a horse.

MICROSCOPIC DESCRIPTION: Placenta: There is multifocal loss **(1pt.)** of placental villi **(1pt.)**. Within affected villi, there is loss or severe attenuation of lining trophoblasts. **(1pt.)** Some remnant villi have lost differential staining (coagulative necrosis) **(2pt.)**, and in areas of trophoblast necrosis, there is infiltration of low to moderate numbers of neutrophils **(2pt.)** and fewer macrophages and lymphocytes, admixed with edema and cellular debris **(1pt.)** within the villar fibrovascular tissue, which often extends into the underlying chorionic stroma **(1pt.)**. Within areas of trophoblast loss, and more prominently on adjacent less affected villi, **(1pt.)** trophoblasts are multifocally swollen with numerous small 2-3um cytoplasmic coccobacilli. **(2pt.)** Occasionally, trophoblasts contain a discrete intracytoplasmic vacuole. **(1pt.)** There is rupture of trophoblasts and extrusion of bacilli into the intervillar space, **(1pt.)** where they are admixed with necrotic sloughed trophoblasts and cellular debris. There is multifocal proliferation and piling up of chorionic epithelium. Vessels are diffusely congested within the placental villi and underlying chorion. Chorionic vessels occasionally contain non-occlusive thrombi and or increased numbers of pavedmented neutrophils. **(1pt.)**

MICROSCOPIC DIAGNOSIS: Placenta: Placentitis **(1pt.)**, necrotizing **(1pt.)** and neutrophilic **(1pt.)**, multifocal to coalescing, moderate, with numerous intratrophoblastic and extracellular bacilli. **(1pt.)**

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

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Case 4. Tissue from a dog.

MICROSCOPIC DESCRIPTION: Testis: 95% of the normal testicular parenchyma is effaced **(1pt.)** by an infiltrative, encapsulated moderately cellular, poorly demarcated, multilobular neoplasm. **(1pt.)** The neoplasm is composed of Sertoli cells **(1pt.)** arranged in seminiferous-like tubules **(1pt.)** and sheets on a moderately dense fibrous stroma. **(1pt.)** Neoplastic cells have indistinct cell borders with a moderate amount of wispy amphophilic cytoplasm. **(1pt.)** Nuclei are irregularly round with coarsely stippled chromatin and 1-2 prominent basophilic nucleoli. **(1pt.)** there is moderate anisokaryosis and mitoses figures average 2 per 2.37mm² field. **(1pt.)** Few compressed and atrophic normal seminiferous tubules which are devoid of spermatogonia are present at the edge of the testis. **(1pt.)**

Adjacent to the testis, and apparently interposed between the testis and efferent ductules is in the section containing the tumor described above, there is a well-formed uterus masculinus **(1pt.)** with a glandular endometrium **(1pt.)** and a thick smooth muscle wall. The uterine glands are variably thick and tortuous and dilated up to 1mm in diameter. **(1pt.)** They are lined by a columnar to cuboidal epithelium with moderate amounts of finely granular eosinophilic cytoplasm. **(1pt.)** Dilated glands often contain small amounts of floccular protein and sloughed epithelium. There is multifocal infiltrates of moderate numbers of neutrophils **(1pt.)** with few macrophages, lymphocytes and plasma cells scattered throughout the endometrium, infiltrating glands, and effacing endometrial architecture (most prominently in the section containing the tumor described above. There are segmental areas of endometrial necrosis and loss. Multifocally, some endometrial glandular epithelium are markedly swollen with vacuolated cytoplasm (progesterone change).

MORPHOLOGIC DIAGNOSIS: 1. Testis: Sertoli cell tumor (mixed type). **(3pt.)**

2. Uterus: Uterus masculinus, with marked suppurative endometritis. **(2pt.)**

Name the condition: Persistent Mullerian duct syndrome. **(1pt.)**