

WSC 2011-2012.  
Conference 9, Case 1

Tissue from a dog.

**MICROSCOPIC DESCRIPTION:** Uterus **(1 pt.)** The endometrium is diffusely and markedly thickened **(1 pt.)** up to 1 cm by markedly ectatic **(1 pt.)** endometrial glands, uterine stroma, plump fibroblasts, and collagen, which multifocally extends into the inner uterine smooth muscle layer **(1 pt.)** (cystic endometrial hyperplasia) **(1 pt.)**. Glands are lined by cuboidal to tall columnar epithelium **(1 pt.)** that piles up to 3 layers deep and occasionally forms papillary and micropapillary projections. **(1 pt.)** Cells have abundant eosinophilic occasionally foamy cytoplasm and vesiculate nuclei **(1 pt.)** (progestational epithelium) **(1 pt.)**. Cystic glands are lined by attenuated epithelium, and contain variable combinations and concentrations of degenerate and viable neutrophils **(1 pt.)**, macrophages **(1 pt.)**, abundant cellular debris, proteinaceous fluid, and numerous 3-5um wide **(1 pt.)**, dichotomous branching, septate **(1 pt.)** fungal hyphae **(1 pt.)** with parallel walls. Occasionally, glands have ruptured, and the adjacent stroma is expanded by the inflammatory components and fungal hyphae described above, surrounded by a thick wall of epithelioid macrophages as well as multinucleated foreign body macrophages and abundant fibrous connective tissue **(1 pt.)**. Rare blood vessels within the muscular tumors are surrounded by low numbers of lymphocytes and plasma cells. The uterine lumen is filled with innumerable degenerate neutrophils admixed with degenerate neutrophils and macrophages, sloughed epithelial cells, hemorrhage, and abundant necrotic debris (pyometra) **(2 pt.)**.

**MORPHOLOGIC DIAGNOSIS:** Uterus: Endometritis, necrotizing, diffuse, severe, with cystic endometrial hyperplasia, multifocal mild adenomyosis, and numerous fungal hyphae. **(3 pt.)**

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

WSC 2011-2012  
Conference 9, Case 2

Tissue from a bison.

**MICROSCOPIC DESCRIPTION:** Chorioallantois **(2 pt.)**: There are multiple areas of loss of chorionic villus architecture **(1 pt.)** with replacement by abundant eosinophilic cellular and karyorrhectic debris (necrosis) **(2 pt.)** and mineral. Remaining chorionic villi are infiltrated by moderate numbers of neutrophils **(2 pt.)**, which are admixed with fibrin and abundant cellular debris. Numerous trophoblasts **(1 pt.)**, including necrotic, sloughed trophoblasts within the debris field) are markedly expanded by large numbers of intracytoplasmic 1-2 um bacilli **(2 pt.)**. Chorionic vessels, predominantly arteries are expanded by low numbers of neutrophils, extruded protein, and cellular debris (vasculitis). **(2 pt.)** There is abundant debris, including plant material scattered throughout the intervillar space. Multifocally within the amniotic connective tissue, there are few neutrophils, small amounts of mineral and increased clear space with few dilated lymphatics (edema) **(1 pt.)**.

**MORPHOLOGIC DIAGNOSIS:** Chorioallantois: Placentitis, necrotizing, multifocal to coalescing, moderate, with mild multifocal vasculitis and numerous intracytoplasmic bacilli **(3 pt.)**

**CAUSE:** *Brucella abortus* **(3 pt.)**

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

WSC 2011-2012  
Conference 9, Case 3

Tissue from a goat.

(NOTE: If you just described Case 2 from this conference, skip this one. It is pretty much the exact same description – without the vasculitis.)

**MICROSCOPIC DESCRIPTION:** Chorioallantois (**2 pt.**): There are multiple areas of loss of chorionic villus architecture (**1 pt.**) with replacement by abundant eosinophilic cellular and karyorrhectic debris (necrosis) (**2 pt.**) and mineral. Remaining chorionic villi are infiltrated by moderate numbers of neutrophils (**2 pt.**), which are admixed with fibrin and abundant cellular debris (**1 pt.**). Numerous trophoblasts (**1 pt.**), including necrotic, sloughed trophoblasts within the debris field) are markedly expanded by large numbers of intracytoplasmic 1-2 um bacilli (**2 pt.**). There is abundant debris, including plant material and meconium scattered throughout the intervillar space. Multifocally within the chorioallantoic connective tissue, there are patches contain low to moderate numbers of neutrophils and fewer histiocytes, and similar cells are present in low numbers around vessels (**2 pt.**).

**MORPHOLOGIC DIAGNOSIS:** Chorioallantois: Placentitis, necrotizing, multifocal to coalescing, moderate, with numerous intracytoplasmic bacilli (**3 pt.**)

**CAUSE:** *Coxiella burnetti* (**3 pt.**)

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

WSC 2011-2012

Conference 9, Slide 4.

Tissue from a foal.

MICRSCOPIC DESCRIPTION: Liver: Scattered randomly( **1pt.**) throughout the section are multifocal to coalescing areas of necrosis ( **1pt.**) ranging from those in which hepatocytes lack differential staining, but retain cellular architecture ( **1pt.**) (coagulative necrosis) ( **1pt.**), to those in which hepatocyte architecture is lost, and the area is infiltrated by numerous degenerate neutrophils ( **1pt.**) admixed with cellular debris (lytic necrosis.) ( **1pt.**) Hepatocytes adjacent to these foci are brightly eosinophilic and rounded up with hyperchromatic nuclei ( **1pt.**) (degeneration) ( **1pt.**). Portal areas are expanded ( **1pt.**) with moderate numbers of lymphocytes ( **1pt.**), macrophages, and fewer neutrophils and plasma cells which occasionally breach the limiting plate and extend into adjacent hepatic parenchyma. There is diffuse mild ductular reaction ( **1pt.**). Multifocally, hepatocyte cytoplasm contains variably sized discrete vacuoles (lipid) ( **1pt.**). The hepatic capsule is multifocally and mildly expanded by low numbers of neutrophils, macrophages, lymphocytes, plasma cells, hemorrhage, and edema. ( **1pt.**)

MORPHOLOGIC DIAGNOSIS: Liver: Hepatitis, necrotizing, multifocal, moderate. ( **3pt.**)

CAUSE: *Listeria monocytogenes* ( **3pt.**)

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