

WSC 2025-2026
Conference 12 Case 1
Tissue from a lamb.

MICROSCOPIC DESCRIPTION: Placenta **(1pt)**: One section of cotyledonary placenta and multiple sections of chorioallantoic membrane are submitted for examination. Scattered throughout the section, there are multifocal to coalescing areas of lytic **(1pt)** villar necrosis **(2pt)**. Within these areas, chorionic villi are effaced by granular eosinophilic necrotic cellular debris **(1pt)** with infiltration of a few neutrophils **(1pt)**, small amounts of hemorrhage, and polymerized fibrin **(1pt)**. Scattered throughout the cotyledon, small caliber vessels occasionally contain fibrin thrombi **(2pt)**. Randomly scattered throughout the cotyledon, individual trophoblasts **(2pt)** are expanded by an 12-15 micron apicomplexan cysts **(2pt)** which contains moderate numbers of spherical zoites **(2pt)**. Chorionic vessels are within normal limits and free of inflammation. There's plant material scattered throughout the placenta; there is no inflammation associated with this material, and it is considered an artifact of retrieval.

The chorioallantoic membranes are considered within normal limits; there is no evidence of infectious or inflammatory disease. **(1pt)**

MORPHOLOGIC DIAGNOSIS: Placenta: Placentitis, necrotizing **(1pt)**, subacute, multifocal to coalescing, subacute, moderate with intratrophoblastic apicomplexan cysts. **(1pt)**

CAUSE: *Toxoplasma gondii* **(2pt)**

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

WSC 2025-2026
Conference 12, Case 2
Tissue from a dog.

MICROSCOPIC DESCRIPTION: Lymph node **(1pt.)**: A lymph node with no overlying haired skin is submitted for examination. Effacing 95% of the lymph node but contained within the boundaries of the node, **(1pt.)** is an unencapsulated infiltrative multi-lobular poorly demarcated moderately cellular neoplasm. **(1pt.)** The neoplasm is composed of two distinct cellular populations. **(1pt.)** The first and predominant population are spindle cells **(1pt.)** which are arranged in long haphazardly arranged streams and bundles **(1pt.)** on a fine fibrous stroma. Neoplastic cells have a moderate amount of a finely vacuolated eosinophilic cytoplasm with indistinct cell borders. **(1pt.)** Nuclei are oval to elongate with finely stippled chromatin and one prominent eosinophilic nucleolus. **(1pt.)** Anisocytosis and anisokaryosis are moderate and mitosis average 9 per 2.37mm² field. **(1pt.)** The second population is composed of epithelial cells **(1pt.)** which form poorly-differentiated glandular structures **(1pt.)** throughout the neoplasm. Neoplastic epithelial cells are cuboidal with distinct cell borders and a moderate amount of granular basophilic cytoplasm. **(1pt.)** Nuclei are regularly round with finely stippled chromatin and a single eosinophilic prominent nucleolus. Anisocytosis and anisokaryosis are mild and mitoses in this population are 7 per 2.37 mm² field. **(1pt.)** The central 33% of the neoplasm has undergone coagulative necrosis. **(1pt.)** There are remnant aggregates of lymphocytes and plasma cells scattered throughout the neoplasm. There is mild edema in the surrounding subcutis. The neoplasm is contained within the node. **(1pt.)**

MORPHOLOGIC DIAGNOSIS : Lymph node: Carcinoma and malignant myoepithelioma, metastatic. **(4pt.)**

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

WSC 2025-2026

Conference 12, Case 3.

Tissue from a macaque.

MICROSCOPIC DESCRIPTION: Uterus **(1pt.)**: Multifocally and circumferentially within the endometrium and effacing both the glands and stroma, there is an infiltrative, moderately cellular multinodular, poorly demarcated, unencapsulated neoplasm **(2pt.)** composed of two cell types **(1pt.)** in contiguous nests and packets **(1pt.)** on a fine fibrovascular stroma. **(1pt.)** The first and population-predominant cell type **(1pt.)** is a population of polygonal **(1pt.)** uninucleate cells (trophoblasts) ranging up to 20um in diameter with prominent cell borders and a moderate amount of homogenous, occasionally vacuolated eosinophilic cytoplasm. **(1pt.)** Nuclei are round with finely clumped chromatin and 1-2 prominent nuclei. Anisocytosis and anisokaryosis are moderate with occasional pleomorphic nuclei. Mitoses are rare. **(1pt.)** The second cellular population is composed of **(1pt.)** multinucleated cells **(1pt.)** (syncytiotrophoblasts) **(1pt.)** which range up to 60um with cytoplasm similar to the first cellular population but up to 5 large irregular nuclei and one to two prominent eosinophilic nuclei. **(1pt.)** Nuclei often exhibit molding and there are rare intracytoplasmic vacuolation. Mitoses are rare in this population as well. Neoplastic trophoblasts exhibit occasional apoptosis, and there is a focally extensive area of lytic necrosis within the neoplasm with abundant granular cellular debris and cholesterol clefts. **(1pt.)** The stroma contains low to moderate numbers of lymphocytes and macrophages and rare aggregates of siderophages. **(1pt.)** The endometrial stroma is mildly hyperplastic and glands contain small amounts of granular debris. **(1pt.)**

A section of normal cycling ovary is also present on the slide.

MORPHOLOGIC DIAGNOSIS: Uterus: Choriocarcinoma **(3pt.)**

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

WSC 2025-2026
Conference 11, Case 4.
Tissue from a rabbit

MICROSCOPIC DESCRIPTION: Uterus: Within the endometrium on the mesometrial side of the uterus **(1pt.)**, the endometrial stroma is markedly thickened **(1pt.)** as a result of an accumulation of innumerable small clear vacuoles within the endometrial stromal cells **(1pt.)** (decidual change) **(1pt.)** which often peripheralize the nucleus. There are multifocal areas of lytic necrosis **(1pt.)** within the mass of decidualized stroma, with replacement of the altered endometrial stromal cells with abundant granular eosinophilic cellular debris, hemorrhage and polymerized fibrin. **(1pt.)** The stroma entraps tortuous and cystic endometrial glands, which contain sloughed epithelial cells and cellular debris within their lumina. **(1pt.)** The adjacent endometrium is compressed. **(1pt.)** Endometrial glands are often mildly cystic **(1pt.)**, and their lining epithelium has few vacuoles within it (progesterone change) **(1pt.)**. In one of the two sections, the endometrium also contains moderate numbers of pleomorphic cells ranging up to 110um in diameter. **(1pt.)** These cells are uninucleate and multinucleated **(1pt.)** (resembling trophoblasts and syncytiotrophoblasts) **(1pt.)** respectively) with abundant micro-to macrovacuolated eosinophilic cytoplasm **(1pt.)** and pleomorphic nuclei **(1pt.)** with coarsely stippled chromatin and one or more eosinophilic macronucleoli. Mitoses are rare in this population. These cells are often surrounded by an eosinophilic proteinaceous material. **(1pt.)**

MORPHOLOGIC DIAGNOSIS: Uterus, endometrial stroma: Decidual reaction **(3pt.)**, focally extensive, severe, with trophoblastic giant cells. **(1pt.)**

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