

WSC 2017-2018 Conference 7

Case 1 – Tissue from a goat.

MICROSCOPIC DESCRIPTION:

MORPHOLOGIC DIAGNOSIS:

NAME THE CONDITION:

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Case 2 – Tissue from a dog.

MICROSCOPIC DESCRIPTION:

MORPHOLOGIC DIAGNOSIS:

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Case 3 – Tissue from a calf.

MICROSCOPIC DESCRIPTION:

MORPHOLOGIC DIAGNOSIS:

CAUSE:

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Case 4 – Tissue from a dog.

MICROSCOPIC DESCRIPTION:

Fibrovascular tissue (presumptively from jaw): Expanding the submucosal connective tissue is a poorly demarcated, unencapsulated infiltrative, moderately cellular, multilobular neoplasm **(2pt.)** composed of islands **(1pt.)** of odontogenic epithelium **(1pt.)** attempting to recapitulate teeth **(1pt.)** on a moderate fibrovascular stroma**(1pt.)**. Peripheral neoplastic cells are characterized by a prominent layer of tightly packed columnar**(1pt.)** cells with apically-located oval nuclei and prominent basilar cytoplasmic clearing **(1pt.)** (ameloblasts) **(1pt.)** which palisade along the basement membrane and surround loosely arranged stellate to fusiform cells with prominent intracellular bridging (stellate reticulum) **(1pt.)**. Ameloblasts have distinct cell borders, moderate amounts of pale eosinophilic cytoplasm, a pale oval to elongate nucleus with finely stippled chromatin and 1-2 distinct nucleoli. The mitotic rate averages 1-5 per high power field, and there is multifocal single cell necrosis. **(1pt.)** Along the basilar aspects of the palisading ameloblasts are streams of densely packed fusiform to polygonal cells (odontoblasts) **(1pt.)** that are often embedded in variably thick, wedge-shaped foci of homogeneous, brightly eosinophilic, extracellular matrix **(1pt.)** (dentin) **(1pt.)**. Multifocally, the stroma adjacent to neoplastic epithelial cells contains aggregates of loosely arranged, primitive mesenchyme resembling the dental pulp **(1pt.)**.

MORPHOLOGIC DIAGNOSIS: Complex odontoma. (4pt.)

O/C: (1pt.)