

WSC 2023-2024  
Conference 15, Case 1  
Tissue from a goat.

MICROSCOPIC DESCRIPTION: Haired skin and bone of jaw (presumptive mandible): **(1pt.)** Within and effacing the bone **(1pt.)**, there is an infiltrative, well-demarcated, unencapsulated, nodular densely cellular neoplasm **(2pt.)**. Neoplastic cells are arranged in long interlacing streams and bundles **(1pt.)** on a fine fibrovascular matrix **(1pt.)**. The predominant neoplastic cell is spindled **(1pt.)**, with indistinct cell borders and a moderate amount of granular eosinophilic cytoplasm. **(1pt.)** Nuclei are irregularly round to oval with finely stippled chromatin and 1-2 small basophilic nucleoli **(1pt.)**. There is minimal anisokaryosis and mitotic figures average 1-2 per 2.37mm<sup>2</sup> field. **(1pt.)** Scattered throughout this population (and varying regionally in number are large numbers of multinucleated neoplastic cells **(1pt.)** with up to 10 nuclei per cell **(1pt.)**, with similar cytoplasmic and nuclear features. There is scattered hemorrhage and rare siderophages. **(1pt.)** The neoplasm directly abuts scalloped edges of resorbing lamellar cortical bone. **(1pt.)** There is proliferation of new woven periosteal bone at the edges of the lamellar bone **(1pt.)**, which at one edge of the neoplasm is resorbed as well and the neoplasm infiltrates the overlying lamina propria of the mucosa. There is mild hyperplasia of the overlying mucosal epithelium.

MORPHOLOGIC DIAGNOSIS: Mandible (presumptive): Central giant cell granuloma. **(4pt.)**

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

WSC 2023-2024  
Conference 15, Case 2  
Tissue from a chicken.

**MICROSCOPIC DESCRIPTION:** Vertebrae **(1pt.)**: A sagittal section of multiple vertebrae and spinal cord is submitted for examination. The vertebral body of one of the vertebrae is fractured **(1pt.)** with formation of a markedly disordered callus. **(1pt.)** There is a heterophilic granuloma **(1pt.)** centrally within the fracture which contains areas of lytic cartilage within abundant brightly eosinophilic cellular debris. **(1pt.)** This material is surrounded by moderate numbers of heterophils **(1pt.)** and epithelioid macrophages **(1pt.)** enmeshed in loosely arranged edematous fibrous connective tissue. The remainder of the vertebral body is characterized lysis of medullary bone with peripheral sclerosis **(1pt.)**, proliferation of periosteal woven bone **(1pt.)** oriented perpendicularly to the cortical surface, disordered proliferation of cartilaginous matrix **(1pt.)**, and ventral spondylosis by abundant fibrous connective tissue **(1pt.)** undergoing cartilaginous metaplasia. **(1pt.)** There is moderate vacuolation of the spinal white matter with spheroid formation. **(1pt.)**

**MORPHOLOGIC DIAGNOSIS:** Vertebrae: Osteomyelitis **(1pt.)**, heterophilic and granulomatous, **(1pt.)** focally extensive, severe, with pathologic fracture **(1pt.)**, callus formation and difuse mild spinal cord vacuolation and spheroid formation. **(1pt.)**

**CAUSE:** Enterococcus sp. (Enterococcus cecorum)**(2pt.)**

Name the condition: Spondylolisthesis or kinky back (1pt.)

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Conference 15, Case 3.

Tissue from a dog.

**MICROSCOPIC DESCRIPTION:** Bone Infiltrating and effacing both cortical and lamellar bone **(1pt.)** in this section, there is an infiltrative, unencapsulated, moderately cellular, poorly demarcated neoplasm. **(1pt.)** The neoplasm is composed of polygonal epithelial cells **(1pt.)** arranged in nests, packets and trabeculae **(1pt.)** on a dense fibrous stroma. **(1pt.)** Neoplastic epithelial cells are polygonal**(1pt.)**, with small amounts of cytoplasm and distinct cell borders. **(1pt.)** Nuclei are round to oval with moderately stippled chromatin and 1-3 small blue nucleoli. **(1pt.)** Anisocytosis and anisokaryosis are minimal and the mitotic rate is 6 per 2.37mm<sup>2</sup> field. **(1pt.)** There is extensive apoptosis of neoplastic cells and neoplastic cells undergo abrupt keratinization **(1pt.)** and form ghost cells **(1pt.)**. There is extensive lysis of cortical bone **(1pt.)** and formation of abundant periosteal new bone oriented perpendicularly to the remaining cortex. **(1pt.)** There is extensive remodeling and lysis of medullary bone. **(1pt.)**

**MICROSCOPIC DIAGNOSIS:** Bone: Metastatic pilomatricoma. **(5pt.)**

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

WSC 2023-2024

Conference 15, Case 4.

Tissue from a parakeet.

**MICROSCOPIC DESCRIPTION:** Long bone: Within the diaphysis **(1pt.)**, there is an infiltrative, unencapsulated, moderately cellular, well demarcated, neoplasm. **(2pt.)** The neoplasm is composed of polygonal cells **(1pt.)** arranged in nests and packets **(1pt.)** on a fine fibrovascular stroma **(1pt.)**. Neoplastic cells have indistinct cell borders with a moderate amount of finely granular eosinophilic cytoplasm. **(1pt.)** Anisocytosis and anisokaryosis is minimal and mitoses average 3 per 2.37mm<sup>2</sup> field. **(1pt.)** In the areas of infiltration, the endosteal surfaces **(1pt.)** of trabecular and cortical bone is lined by basophilic matrix **(1pt.)** containing osteocytes. (“medullary bone”) **(2pt.)** The surface of the medullary bone is scalloped, **(1pt.)** but lacks a lining of osteoblasts or any evidence of osteoclasts within Howship’s lacunae. **(1pt.)** Bone marrow is within normal limits. **(1pt.)**

**MORPHOLOGIC DIAGNOSIS:** Long bone: Metastatic Sertoli cell tumor **(2pt.)** with local medullary bone formation. **(2pt.)**

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