

WSC 2009-2010, Conference 13, Case 1.

Tissue from a cat.

**MICROSCOPIC DESCRIPTION:** Haired skin. There is multifocal epidermal atrophy (**2 pt.**) with expansion of the stratum corneum (**1 pt.**) and mild parakeratotic hyperkeratosis (**1 pt.**), which extends into the follicular ostium and infundibulum (**1 pt.**). Diffusely, hair follicles are small (miniaturization) (**3 pt.**) and lack hair shafts (**1 pt.**); sebaceous glands are normal in comparison (**1 pt.**). Many follicles consist of little more than a single layer of outer root sheath and are surrounded by thickened hyalinized glassy membrane. (**1 pt.**) Multifocally, the superficial dermis (**1 pt.**) and occasionally pilosebaceous units (**1 pt.**) are infiltrated by low numbers of lymphocytes and eosinophils (**1 pt.**).

**MORPHOLOGIC DIAGNOSIS:** Haired skin: Follicular telogenization, diffuse, severe with epidermal atrophy and mild lymphocytic superficial dermatitis. (**3 pt.**)

Name the condition: Feline paraneoplastic alopecia (**2 pt.**)

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

WSC 2009-2010. Conference 13, Case 2

Tissue from a dog.

**MICROSCOPIC DESCRIPTION:** Haired skin: Within the deep dermis, elevating the overlying superficial dermis, there is an infiltrative (**1 pt.**), moderately cellular, unencapsulated, poorly demarcated (**1 pt.**) neoplasm (**1 pt.**) . The neoplasm is composed of streams and bundles (**1 pt.**) of spindle cells (**1 pt.**) on a fine pink matrix (**1 pt.**). The neoplastic cells have indistinct cell borders and a moderate amount of a finely granular eosinophilic cytoplasm (**1 pt.**). Nuclei are spindled with tapering ends and a moderate amount of finely stippled chromatin and one to two small basophilic nucleoli (**1 pt.**). Mitotic figures are rare (**1 pt.**). In large areas of the neoplasm, the cells are separated by thick hyalinized collagen fibers (**2 pt.**) There are small amounts of lymphocytes and lesser plasma cells scattered through the neoplasm (**1 pt.**), primarily adjacent to vessels. There is mild atrophy of the overlying epidermis, and follicles are diffusely in telogen (**1 pt.**).

**MORPHOLOGIC DIAGNOSIS:** Haired skin: Fibrosarcoma, low-grade (keloidal). (**5 pt.**)

O/C – (**1 pt.**)

WSC 2009-2010, Conference 13, Case 3.

Tissue from a dog.

**MICROSCOPIC DESCRIPTION:** Haired skin: Within the superficial and deep dermis (**1 pt.**), there is a 5mm nodule which effaces normal dermal components and is composed of innumerable macrophages (**2 pt.**) admixed with large numbers of lymphocytes (**1 pt.**), aggregates of moderate numbers of neutrophils (**1 pt.**), and low numbers of multinucleated macrophages (**1 pt.**), plasma cells, and pigment-laden macrophages. The periphery and deep margins of the nodule contain increased numbers of lymphocytes, especially in perivascular areas (**1 pt.**). There are multifocal areas of hemorrhage within the nodule and vessels are lined by reactive endothelium. There is a focally extensive area of ulceration (**1 pt.**) overlying the nodule; the remaining epidermis is mildly thickened with orthokeratotic hyperkeratosis. There is mild clumping of melanin within adjacent follicles (**1 pt.**) and aggregates of melanomacrophages adjacent to these follicles (**1 pt.**).

**MORPHOLOGIC DIAGNOSIS:** 1. Haired skin: Dermatitis, pyogranulomatous, focally extensive, severe (**3 pt.**)

2. Haired skin, hair follicles: Melanin clumping, with dermal melanophages. (**2 pt.**)

Name the condition: Leproid granuloma, color mutant alopecia (**2 pt. for either**)

**Cause:** *Mycobacterium sp.* (**2 pt.**)

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

WSC 2009-2010, Conference 13, Case 4.

Tissue from a dog.

**MICROSCOPIC DESCRIPTION:** Haired skin: There are simultaneous neoplastic and inflammatory conditions in this section. Extending from the epidermis to the deep cut margin of this section, there is an unencapsulated, infiltrative, densely cellular, poorly demarcated neoplasm (**1 pt.**). The neoplasm is composed of round cells (**1 pt.**) arranged in sheets (**1 pt.**) which efface normal architecture. Neoplastic cells are round, with indistinct cell borders and a moderate amount of a finely granular basophilic cytoplasm. Nuclei are large, round, and with moderately clumped chromatin and 1-3 basophilic nucleoli. (**1 pt.**) Mitotic figures average 4/hpf. (**1 pt.**) There are multifocal areas of necrosis (**1 pt.**) scattered throughout the neoplasm. Also scattered throughout the neoplasm are moderate numbers of macrophages (**2 pt.**) and rare multinucleated macrophages which contain cytoplasmic aggregates of 2-3um (**1 pt.**) round amastigotes (**1 pt.**) with a central nucleus and a single cytoplasmic kinetoplast (**1 pt.**). There is a focally extensive area of ulceration overlying the neoplasm, within this area there is an infiltrate of viable and degenerate neutrophils, edema, fibrin aggregates, and cellular debris (**1 pt.**). There is mild epidermal hyperplasia and rare follicles are plugged with keratin debris.

**MORPHOLOGIC DIAGNOSIS:** 1. Haired skin: Malignant lymphoma. (**3pt.**) 2. Haired skin: Dermatitis, pyogranulomatous, multifocal to coalescing, with numerous intrahistiocytic amastigotes. (**2 pt.**)

**Cause:** *Leishmania sp.* (**2 pt.**)

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