

WSC 2015-2016, Conference 11

Case 1. Tissue from a deer.

**MICROSCOPIC DESCRIPTION:** Haired skin: Diffusely, hair follicles are markedly dilated (**2pt**), devoid of hair shafts (**2pt**) contain small to moderate amounts of keratin debris (**2pt**), and are lined by a thin layer of orthokeratotic hyperkeratosis (**2pt**) which extends along follicular ostia and the overlying epidermis. Occasional follicles contain attenuated fragmented hair shafts which do not have a distinct cuticle, cortex, and medulla (**2pt**). Hair follicles occasionally contain small numbers of neutrophils (**1pt**). Sebaceous gland ducts, which communicate with dilated follicles are also markedly dilated (**1pt.**), and sebaceous glands are diffusely and mildly hyperplastic as well as hypertrophic. (**1pt**). Rare follicles are effaced and infiltrated by low to moderate numbers of macrophages and rare giant cells (furunculosis). Apocrine glands are diffusely and mildly dilated and contain amphophilic secretory product (**1pt**). There is a mild lymphocytic superficial and perivascular dermatitis (**1pt**).

**MORPHOLOGIC DIAGNOSIS:** Haired skin: Follicular dysplasia, diffuse, severe with sebaceous gland hyperplasia and duct dilation, and hyperkeratosis. (**3 pt.**)

Name the condition: Congenital hypotrichosis (**1 pt.**)

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

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Case 2. Tissue from a cat.

**MICROSCOPIC DESCRIPTION:** Ear pinna at tip: The pinna is multifocally thickened by areas of granulation tissue **(1pt)** centered on the pinnal cartilage plates **(2pt)** which contain large numbers of neutrophils **(1pt)** and macrophages **(1pt)**. Neutrophils, and to a lesser extent, macrophages, multifocally infiltrate through the perichondrium **(1pt)**, replacing chondrocytes and the surrounding cartilaginous matrix. Within these areas, the cartilaginous matrix is decreased in amount and stain intensity **(1pt)** (degeneration) **(1pt)**. The affected cartilage is irregular in contour and kinked **(1pt)**, and the edges are scalloped. Immediately adjacent to the areas of affected cartilage, neutrophils and macrophages are embedded in a bed of dense collagen and numerous haphazardly arranged fibroblasts (perichondrial fibrosis) **(1pt)**, where they are admixed with fewer lymphocytes **(1pt)** and plasma cells **(1pt)** and small amounts of cellular debris. The granulation tissue also effaces a small percentage of skeletal muscle within the pinna **(1pt)**. More remotely from the affected cartilage, the inflammatory infiltrate is less dense and more perivascular **(1pt)** in nature, although similar cells are present in periadnexal **(1pt)** and perineurial locations as well **(1pt)**. Small numbers of lymphocytes, plasma cells, and mast cells are scattered throughout the dermis. There is minimal orthokeratotic hyperkeratosis of the overlying epithelium.

**MORPHOLOGIC DIAGNOSIS:** Pinna: Auricular chondritis, pyogranulomatous, chronic, multifocal, moderate. **(3 pt)**

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

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Case 3. Tissue from a ferret.

**MICROSCOPIC DESCRIPTION:** Haired skin: Within the dermis, elevating the focally ulcerated and hyperplastic epidermis, is a well-demarcated, encapsulated, expansile, moderately cellular, round neoplasm **(2pt)**. Neoplastic cells are arranged in long streams and bundles **(1pt)**, and supported by a loosely arranged collagenous matrix **(1pt)**. Neoplastic cells are spindled **(1pt)** to strap-shaped **(1pt)** with abundant fibrillar **(1pt)** brightly eosinophilic cytoplasm and indistinct cell borders. Nuclei are elliptical with finely stippled chromatin and 2-3 small blue nucleoli **(1pt)**. There is moderate anisocytosis and anisokaryosis, and mild nuclear pleomorphism **(2pt)**, with some extremely large and convoluted nuclei scattered throughout the neoplasm. Mitotic figures are rare. **(1pt)** There are randomly scattered areas of sclerosis **(1pt)** throughout the section, where necrotic smooth muscle cells are replaced with dense areas of collagen. The overlying epidermis exhibits a large area of full-thickness necrosis (ulceration) **(1pt)** and the overlying compressed dermis contains numerous neutrophils **(1pt)** admixed with fewer macrophages, lymphocytes, hemorrhage, edema, and abundant cellular debris. There are large numbers of activated fibroblasts within these areas (granulation tissue) **(1pt)** .

**MORPHOLOGIC DIAGNOSIS:** Haired skin: Piloleiomyoma **(4pt)**

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

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CASE 4. Tissue from a dog.

**MICROSCOPIC DESCRIPTION:** Haired skin: Multifocally, follicles **(1pt)** are surrounded, and occasionally effaced by innumerable viable and degenerate neutrophils **(1pt)** that infiltrate the follicular infundibulum **(2pt)** which are admixed with abundant cellular debris, rare macrophages, and small amounts of hemorrhage and edema. **(1pt)** Occasionally follicles contain small to moderate numbers of neutrophils within their wall **(1pt)**, and within these areas, follicular epithelium is individualized, and rounded up with abundant intercellular edema. In some areas, large numbers of neutrophils are centered on fragments of keratin debris as well as individualized squamous epithelium (presumably remnants of the follicular wall) **(1pt)** (furunculosis) **(1pt)**. The deep dermis, especially around follicles is mildly edematous. Vessels have markedly hypertrophic endothelial cells, often contain numerous paved neutrophils and are rarely thrombosed. **(1pt)** Erector pili smooth muscle is often hyalinized and irregular in contour (degeneration.) **(1pt)** Apocrine glands are occasionally dilated and rarely, their lumina are filled with neutrophils. The dermis is infiltrated by low to moderate numbers of neutrophils at all levels **(1pt)** including the underlying subcutaneous fat **(1pt)**, and there are multiple areas of perivascular hemorrhage. The overlying epidermis is diffusely and mildly hyperplastic **(1pt)**.

**MORPHOLOGIC DIAGNOSIS:** Haired skin: Furunculosis, suppurative and superficial, multifocal to coalescing, with abundant hemorrhage. **(3 pt.)**

**NAME THE CONDITION:** Post-grooming folliculitis **(1pt)**

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