WSC 2021-2022
Conference 8, Case 1.

Tissue from a cat.

MICROSCOPIC DESCRIPTION: Footpad **(1pt.)**: Infiltrating and effacing approximately 75% of the lobules of adipose tissue **(1pt.)** and embedded eccrine sweat glands **(1pt.)** and infiltrating the collagen bundles that separate them **(1pt.)**, are innumerable plasma cells **(2pt.)** and fewer macrophages **(1pt.)** and neutrophils, which are separated into indistinct nest by fine fibrovascular septa. Frequently, plasma cells are packed with globular, eosinophilic, intracytoplasmic inclusions (Russell bodies within Mott cells) **(2pt.)**. Within infiltrated lobules, adipocytes vary significantly in size (atrophy) **(1pt.)**. Diffusely, vessels are congested, and small arterioles often are surrounded by 2-3 layers of collagen and fibroblasts. There is diffuse mild expansion of the fibrous connective tissue septa separating lobules of pawpad adipose tissue. **(1pt.)** There is mild atrophy of the overlying epidermis. **(1pt.)** There is minimal orthokeratotic hyperkeratosis overlying the footpad.

MORPHOLOGIC DIAGNOSIS: Footpad: Pododermatitis **(1pt.)**, plasmacytic **(1pt.)**, chronic, multifocal to coalescing, severe.

NAME THE CONDITION: Plasma cell pododermatitis **(3pt.)**

NAME ANOTHER POSSIBLE LESION IN THIS ANIMAL: Plasmacytic stomatitis, immune complex glomerulonephritis, amyloidosis. **(2pt.)**

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

WSC 2021-2022
Conference 8, Case 2.
Tissue from a dog.
(The lesion is good, although a bit early in development – not really much of a descriptive slide.

MICROSCOPIC DESCRIPTION: Haired skin, multiple sections: Hair follicles are present in all stages of development. **(1pt.)** Multifocally, small to moderate numbers of lymphocytes infiltrate the root bulbs of anagen hair follicles. **(2pt.)** The lymphocytes are primarily distributed within and separate the collagenous fibers at the follicular boundary **(2pt.)**, but occasionally infiltrate the outer root sheath **(2pt.)** and rarely, the interior of the bulb **(2pt.)**. Multifocally, keratinocytes within the hair bulb of affected follicles rarely demonstrate intracytoplasmic swelling and nuclear pyknosis (necrosis) **(2pt.)**. One one section, there is a focally extensive area of epidermal hyperpigmentation, and covered by a t layer of loosely arranged orthokeratotic hyperkeratosis. **(2pt.)**

MORPHOLOGIC DIAGNOSIS: Haired skin: Bulbitis **(2pt.)**, lymphocytic **(2pt.)**, multifocal, mild.

NAME THE CONDITION: Alopecia areata **(2pt.)**

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

WSC 2021-2022 Conference 8
Case 3. Tissue from horse.

MICROSCOPIC DESCRIPTION: Haired skin: Diffusely expanding the deep dermis **(1pt.)** and is a 3cm inflammatory nodule composed of coalescing, poorly demarcated foci of pyogranulomatous **(2pt.)** inflammation. The coalescing foci of inflammation are composed centrally of numerous viable and degenerate neutrophils **(1pt.)**, surrounded by epithelioid macrophages **(1pt.)**, scattered multinucleated giant cells **(1pt.)**, and numerous lymphocytes **(1pt.)** and fewer plasma cells admixed with few reactive fibroblasts, and small amounts of cellular debris. Scattered throughout the inflammatory nodule and often engulfed within multinucleated (and less commonly uninucleated) macrophages **(1pt.)** are clusters of yeasts **(1pt.)** which have 2-3 um-thick dark brown cell walls **(1pt.)**, clear to pale brown cytoplasm with a central basophilic nucleus. Hyphae are 5-10 um wide **(1pt.)**, septate with irregular, dichotomous and non-dichotomous, acute angle to right angle branching **(1pt.)** and thin, pigmented, nonparallel walls. There are perivascular aggregates of moderate numbers of lymphocytes and plasma cells within the adjacent dermis. **(1pt.)** There is mild mucinosis of the surrounding dermis, especially around follicles and adnexa.

MORPHOLOGIC DIAGNOSIS: Haired skin and subcutis: Dermatitis, pyogranulomatous **(1pt.)**, diffuse, severe, with dematiaceous **(1pt.)** yeasts **(1pt.)** and hyphae **(1pt.)**.

NAME THE CONDITION: Phaeohyphomycosis. **(2pt.)**

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

WSC 2021-2022 Conference 8
Case 4. Tissue from a mouse.

MICROSCOPIC DESCRIPTION: Haired skin, multiple sections: There is diffuse marked orthokeratotic hyperkeratosis **(1pt)** which extends down into hair follicles into the bulb **(1pt.)** . Within the keratin along the epidermis and within follicles , there are randomly scattered aggregates of necrotic neutrophils **(1pt)** admixed with cellular debris (pustules) **(1pt)**. Multifocally, and most visibly within follicles, there are aggregates of short bacilli **(1pt)** measuring 1x2um admixed within the hyperkeratotic flake and free within the hair follicle. **(1pt)** The epithelium is diffusely and mildly hyperplastic **(1pt)** with mild disorganization of the normal layers **(1 pt)** due to an increase in the stratum spongiosum and basale, and there are numerous shrunken/apoptotic keratinocytes **(1pt)** both individually and clustered within the spongiosum and more superficial layers. **(1pt)** Necrotic and fewer viable neutrophils infiltrate the epidermis and follicular epithelium. **(1pt)** The superficial dermis is expanded by moderate numbers neutrophils **(1pt)** and macrophages, **(1pt)** admixed with cellular debris, and there is a mild increase of mast cells within the dermis.

MORPHOLOGIC DIAGNOSIS: Haired skin: Hyperkeratosis **(1pt)**, orthokeratotic, diffuse, moderate, with moderate epidermal hyperplasia **(1pt)**, pustules, perivascular suppurative and histiocytic dermatitis **(1pt)** and intracorneal bacilli. **(1pt)**

CAUSE: *Corynebacterium bovis* (*Staphylococcus xylosus* OK and probably more likely based on the level of inflammation) **(2 pt)**

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