WSC 2023-2024
Conference 7, Case 1
Tissue from a dog.

MICROSCOPIC DESCRIPTION: Haired skin: Diffusely, hair follicles are ectatic and filled with keratin debris **(1pt.)** and contain numerous cross and tangential sections of nematode larvae **(1pt.)** and fewer adults **(1pt.)**; nematodes are 20-40 um wide and have a 3-5 um thick, smooth, eosinophilic cuticle; a pseudocoelom, platymyarian-meromyarian musculature **(1pt.)** and an intestine lined by uninucleate cuboidal cells **(1pt.)**. Adult nematodes also have a uterus filled with eggs **(1pt.)**. Diffusely, the epidermal and follicular epithelium is moderately hyperplastic **(1pt.)** with rete ridge formation, acanthosis, minimal spongiosis, and orthokeratotic hyperkeratosis. There are small to moderate numbers of lymphocytes and plasma cells and fewer macrophages within the superficial dermis, primarily in perivascular areas. **(1pt.)** In the deeper dermis, the infiltrate is more severe **(1pt.)**, and infiltrates hair follicles and adnexa (perifollculitis, folliculitis, and perihidradenitis). **(1pt.)** There is a single ruptured follicle (furunculosis) **(1pt.)** which is replaced by numerous neutrophils and macrophages, cellular debris, and extruded keratin debris.

MORPHOLOGIC DIAGNOSIS: Haired skin: Dermatitis, perifolliculitis, and folliculitis, lymphoplasmacytic, **(1pt.)** diffuse, moderate, with follicular and epidermal hyperplasia **(1pt.)**, focal furunculosis **(1pt.)**, and numerous intrafollicular nematode larvae and adults **(1pt.)**

ETIOLOGIC DIAGNOSIS: *Pelodera* dermatitis **(1pt.)**

CAUSE: *Pelodera strongyloides* **(3pt.)**

O/C: (1pt.)

WSC 2023-2024
Conference 7, Case 2
Tissue from dog.

MICROSCOPIC DESCRIPTION: Haired skin: Multiple sections of skin are submitted and all are similar. The epidermis is moderately hyperplastic **(1pt.)** and covered by a thin layer of orthokeratotic hyperkeratosis. **(1pt.)** Rare keratinocytes, primarily in the stratum spongiosum are pyknotic **(1pt.)** ("sunburn cells") **(1pt.)**. In one section there is a focal intracorneal vesicle **(1pt.)** within the straum spongiosum/granuloum, which contains eosinophilic fluid. Adjacent keratinocytes are separated by intercellular edema and are often pyknotic. There are increased numbers of mitotic figures within the basal layer. **(1pt.)** There is breakdown of the elastic fibers immediately subjacent to the epidermis **(1pt.)**, which are small and frayed **(1pt.)** ("solar elastosis). **(1pt.)** Multifocally, there are moderate numbers of lymphocytes and plasma cells within the superficial dermis **(1pt.)**, which occasionally migrate into the basal layer. **(1pt.)** Hair follicles are ectatic up to 2mm and contain abundant keratin debris (comedones), some of which have aggregates of macrophages in close proximity to their wall. **(1pt.)**

MORPHOLOGIC DIAGNOSIS : Haired skin: Epidermal hyperplasia **(1pt.)**, diffuse, mild to moderate, with focal keratinocyte necrosis **(1pt.)**, solar elastosis **(1pt.)**, and comedone formation**(1pt.)**.

NAME THE CONDITION: Actinic dermatosis **(3pt.)**

O/C: (1pt.)

WSC 2023-2024
Conference 7, Case 3.
Tissue from a cat.

MICROSCOPIC DESCRIPTION: Haired skin: There is marked parakeratotic hyperkeratosis **(1pt)** of the stratum corneum. The epidermis is markedly hyperplastic **(1pt)**, forming deep rete ridges **(1pt)** into the underlying dermis. There is multifocal hypergranulosis. Keratinocytees within the stratum spinosum multifocally and often exhibit intracytoplasmic swelling and are rarely necrotic **(1pt)**. There is infiltration of low numbers of neutrophils within the hyperplastic epidermis **(1pt)** and mild superficial edema within dermal pegs. The superficial dermis contains low to moderate numbers of lymphocytes **(1pt)** and plasma cells **(1pt)** in close association and occasionally infiltrating the basal epidermis (interface dermatitis) **(1pt)** and multifocal vacuolation of basal epithelium. **(1pt)** There is multifocal mild pigmentary incontinence. **(1pt)** Multifocally, sebaceous glands are bordered by similar inflammatory cells **(1pt)** and are severely atrophic. **(1pt)** Apocrine gland epithelium is swollen with clear cytoplasm. There are small aggregates of degenerate neutrophils admixed with cellular debris and colonies of 1-2um cocci throughout the overlying hyperkeratotic scale. **(1pt)**

MORPHOLOGIC DIAGNOSIS: Haired skin: Interface dermatitis **(1pt)**, lymphoplasmacytic, diffuse, moderate with epidermal hyperplasia **(1pt)**, parakeratotic hyperkeratosis **(1pt)**, and sebaceous gland atrophy. **(1pt)**.

NAME THE CONDITION: Thymoma-associated exfoliative dermatitis **(2pt)**

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

WSC 2023-2024
Conference 7, Case 4.
Tissue from a dog.

MICROSCOPIC DESCRIPTION: Haired skin and claw **(2pt)**: There is marked vacuolation **(2pt)** and multifocal necrosis **(2pt)** of the basal layer of the germinative epithelium. There is loss of a discrete dermoepidermal junction all along the germinative epithelium. **(2pt)** There is a band of lymphocytes **(1pt)** and fewer plasma cells and macrophages **(1pt)** within this area, which infiltrate the basal and suprabasilar layers of the germinal epithelium **(2pt)**. There is granulation tissue formation on one side of the claw. There is mild ectasia of the apocrine glands of the overlying haired skin.

MORPHOLOGIC DIAGNOSIS: Nailbed: Onychitis **(1pt)**, lymphocytic **(pt)** and interface **(1pt)**, diffuse, marked, with basal epithelial vacuolation and necrosis. **(1pt)**

NAME THE CONDITION: Lupoid onychodystrophy **(3pt.)**

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