Case 1. Tissue from a cat.

MICROSCOPIC DESCRIPTION: Phalanx, with pad and claw: Arising from the dermis of the pad (1pt.) is a dome shaped, multilobular, exophytic, paucicellular, expansile, well demarcated neoplasm (2pt.). The neoplasm is composed of spindle to stellate cells (1pt.) arranged in vague bundles (1pt.) separated by a moderately dense and abundant collagenous stroma (1pt.). Neoplastic cells have indistinct cell borders with small amounts of fibrillar cytoplasm (1pt.), and occasionally are oriented perpendicular (1pt.) to the epidermis or epithelium of the rete ridges. Nuclei are irregularly round with finely clumped chromatin and 1-2 small pink nucleoli. (1pt.) Mitoses average 1 per 10 400x fields). (1pt.) There are numerous mast cells scattered throughout the neoplasm (1pt.). The epidermis overlying the neoplasm is mildly hyperplastic, with long thin rete ridges (1pt.) and moderate orthokeratotic hyperkeratosis. Multifocally, cells within the stratum spinosum exhibit moderate intracellular edema. Entrapped hair follicles are mildly ectatic and also exhibit orthokeratotic hyperkeratosis.

MORPHOLOGIC DIAGNOSIS: Phalanx, with pad and claw: Feline sarcoid (fibropapilloma) (5pt.)

CAUSE: Feline papillomavirus (2 pt.)

O/C: (1pt)

Case 2. Tissue from a dog.

MICROSCOPIC DESCRIPTION: Haired skin: The dermal-epidermal interface is smudgy and indistinct (2pt.). Basal epithelial cells from both the epidermis and hair follicles contain large discrete cytoplasmic vacuoles (1pt.) and are occasionally separated by extracellular edema (1pt.). Rarely, basal epithelial cells are shrunken and necrotic (1pt.) (Civatte body) (1pt.), and there are rare apoptotic cells scattered throughout all levels of the epidermis (1pt.), to include the stratum corneum. There is marked pigmentary incontinence (2pt.), and low numbers of lymphocytes (1pt.) and neutrophils within the mildly edematous superficial dermis (1pt.) at the dermal-epidermal junction. There is diffuse loss of sebaceous glands (2pt.). There is mild parakeratotic hyperkeratosis and rare intracorneal pustule formation. There is questionable cleft formation at one edge of the section at the dermal-epidermal junction, and within the granular layer at the other end.

MORPHOLOGIC DIAGNOSIS: Haired skin: Dermatitis, interface, lymphoplasmacytic, diffuse, mild, with basal epithelial degeneration and necrosis, pigmentary incontinence, and sebaceous gland loss. (4pt.)

NAME THE CONDITION: Cutaneous lupus erythematosus (actually lupoid dermatosis of German Shorthaired pointers (2pt.)

O/C: (1 pt.)

Case 3. Tissue from a cat.

MICROSCOPIC DESCRIPTION: Haired skin: There is profound atrophy of the epidermal (1pt.) and primary and secondary follicular (1pt.) epithelium, which is usually one cell layer thick within the epidermis (1pt.), and no more than two cell layers thick within follicles (1pt.). There is mild diffuse orthokeratotic hyperkeratosis. There is mild diffuse follicular tricholemmal cornification, and follicles are primarily telogenic throughout the section (1pt.). Dermal collagen is subjectively decreased (1pt.) as well as loosely arranged (1pt.). There are aggregates of 3-4 mast cells scattered diffusely throughout the superficial epidermis, as well as low numbers of lymphocytes and plasma cells.

Liver: Hepatocytes are diffusely swollen (1pt.) by an accumulation of numerous discrete variably sized lipid (1pt.) vacuoles which obscures hepatic plate architecture (1pt.), and the liver has rounded edges. Hepatocytes contain numerous brown granular pigrment granules (hemosiderin) (1pt.), which also accumulate within Kupffer calls

MORPHOLOGIC DIAGNOSIS: 1. Haired skin: Atrophy, epidermal, follicular, and dermal, diffuse, severe. (2pt.)

2. Liver, hepatocytes: Lipidosis, diffuse, moderate. (2 pts)

NAME THE CONDITIONS: Feline skin fragility syndrome, hepatic lipidosis (4 pts)

O/C: (1pt)

Case 4. Tissue from a dog.

MICROSCOPIC DESCRIPTION: Perianal gland: Separating and surrounding the hyperplastic (1pt.) perianal glands, there is a nodular, expansile, encapsulated, well-demarcated,, moderately cellular neoplasm (2 pt.) The neoplasm is composed of nests and packets (2 pt.) of polygonal (2 pt.) cells on a fine fibrovascular stroma (2 pt.). Neoplastic cells have a moderate amount of finely granular eosinophilic cytoplasm with distinct cell borders (2 pt.). Nuclei are irregularly round with finely clumped chromatin and 1-2 small basophilic nucleoli (2 pt.). Mitotic figures are rare (2 pt.). There is atrophy of adnexal within the overlying dermis, and infiltration by low to moderate numbers of lymphocytes and plasma cells, as well as mild to moderate multifocal atrophy of adjacent skeletal muscle (1pt.).

MORPHOLOGIC DIAGNOSIS: Perianal gland: Glomus tumor (3 pt.)

O/C: (1 pt.)