

1. Which of the following is considered a statistically significant prognostic parameter for evaluation of feline mammary carcinoma?

A. Clinical staging

B. Tumor subtype

C. Tumor grade

D. Estrogen receptor expression

Prognostic Evaluation of Feline Mammary Carcinomas *A Review of the Literature*

Vet Pathol. First Published April 16, 2014

2. Which of the following cells has been documented to produce Tenascin-C in low grade canine mammary carcinomas?

A. Myoepithelial cells

B. Neoplastic epithelial cells

C. Stromal fibroblasts

D. Non-neoplastic ductular epithelium

Cellular Sources of Tenascin-C in Canine Mammary Carcinomas

Veterinary Pathology. 2015, Vol. 52(1) 92-96

3. What is the most common genetic disorder in domestic rabbits?

A. Congenital glaucoma

B. Ocular cataracts

C. Malocclusion

D. Polycystic kidney disease

Barthold, Griffey, Percy, 4th ed. pg 318

4. In comparison to feline spongiform encephalopathy (FSE), prion protein accumulation and lesion severity is more severe in which region of the brain in feline chronic wasting disease?

A. Caudate nucleus

B. Cerebellar granular layer

C. Hippocampus

D. Corpus callosum

Lesion Profiling and Subcellular Prion Localization of Cervid Chronic Wasting Disease in Domestic Cats. *Veterinary Pathology*. 2015, Vol. 52(1) 107-119

5. Fatal infection with *Parastrongylus dujardini* in callitrichids causes lesions most commonly in which organ?

A. Spleen

B. Kidney

C. Brain

D. Lung

(Ref: Fatal *Parastrongylus dujardini* infection in captive callitrichids. *Vet Pathol*. 2015, issue 2)

6. What is a common concurrent lesion of clouded leopards with pheochromocytoma?

A. Retinal degeneration

B. Myocardial fibrosis

C. Retinal rosettes

D. Myocardial hemorrhage

(Ref: histologic and immunohistochemical characterization of pheochromocytomas in 20 clouded leopards. *Vet Pathol*. 2017, issue 2)

7. Which of the following hepatic lesions has been found to be most common in captive non domestic felids?

A. Hepatic stellate cell hypertrophy

B. Biliary hyperplasia

C. Lymphoplasmacytic portal hepatitis

D. Hepatocellular vacuolar change

Hepatic Lesions in 90 Captive Nondomestic Felids Presented for Autopsy

Veterinary Pathology. 2015, Vol. 52(2) 369-376

8. In the acute stages of bovine *Besnoitia besnoiti* infection, tachyzoites proliferate predominantly in which of the following cell types?

- A. Macrophage
- B. Fibroblast
- C. Basal epithelium in follicle or epidermis
- D. **Endothelium**

Naturally Acquired Bovine Besnoitiosis: Histological and Immunohistochemical Findings in Acute, Subacute, and Chronic Disease. *Vet Pathol.* 2015. 52(3). 476-488.

9. Which of the following lesions is a common feature of Porcine Periweaning failure to thrive syndrome?

- A. Vasculitis in multiple organs
- B. Intestinal crypt hypertrophy
- C. Hemorrhagic gastritis
- D. **Thymic atrophy**

Pathological Features and Proposed Diagnostic Criteria of Porcine Periweaning Failure-to-Thrive Syndrome. *Vet Pathol.* 2015. 52(3). 489-496.

10. Which of the following lesions is seen in Pheochromocytoma induced cardiomyopathy in dogs?

- A. **Contraction bands**
- B. Fatty myocardial infiltration
- C. Myofiber disarray
- D. Endocardial fibrosis

Pathologic and Cardiovascular Characterization of Pheochromocytoma- Associated

Cardiomyopathy in Dogs. *Veterinary Pathology*

2015, Vol. 52(2) 338-343

11. Which of the following vascular lesions is most commonly described in porcine circovirus type-2 systemic disease?

- A. Renal arterial thrombosis
- B. Lymphohistiocytic lymphangitis**
- C. Thrombosis in pulmonary capillaries
- D. Granulomatous and necrotizing phlebitis

Characterization of Vascular Lesions in Pigs Affected by Porcine Circovirus Type 2–Systemic Disease. *Vet Pathol.* 2015. 52(3). 497-504.

12. The pathogenesis of bacillary hemoglobinuria in cattle is associated with which of the following?

- A. Production of Epsilon toxin
- B. Infection with *Clostridium novyi*
- C. Fascioliasis in all cases
- D. Acute renal tubular necrosis**

Pathology of Naturally Occurring Bacillary Hemoglobinuria in Cattle. *Veterinary Pathology* 2017, Vol. 54(3) 457-46.

13. Which of the following myocardial lesions may be seen in rabbits infected with rabies virus?

- A. Cytoplasmic inclusions in ventricular myocytes
- B. Myocardial lesions present in absence of brain lesions
- C. Interstitial hemorrhage with capillary thrombi
- D. Multifocal interstitial fibrosis**

Neurogenic Cardiomyopathy in Rabbits With Experimentally Induced Rabies. *Veterinary Pathology* 2015, Vol. 52(3) 573-575.

14. In which of the following prostatic lesions would you expect to find an increased expression of PECAM-1?

- A. Prostatic carcinoma**
- B. Benign prostatic hyperplasia

- C. Prostatic cyst
- D. All of the above

Immunohistochemical Expression of Angiogenic Factors by Neoplastic Epithelial Cells Is Associated With Canine Prostatic Carcinogenesis. *Vet Pathol.* 2015. 52(4). 573-575.

15. Which of the following is a primary finding most often associated with wooded breast myopathy of broiler chickens?

- A. Decreased dietary selenium
- B. Abundant fibrosis
- C. **Lymphocytic vasculitis**
- D. Multifocal infarctions

Wooden Breast Myodegeneration of Pectoralis Major Muscle Over the Growth Period in Broilers. *Vet Pathol.* 2017. 54(1). 119-128.

16. Which of the following additional lesions may be expected in chronic *Erysipelothrix rhusiopathiae* infection in lambs?

- A. Brainstem infarcts
- B. **Hepatic amyloidosis**
- C. Neutrophilic adrenalitis
- D. Lymphohistiocytic myocarditis

Acute and Chronic *Erysipelothrix rhusiopathiae* Infection in Lambs. *Vet Pathol.* 2015. 52(4). 635-643.

17. Cephalohematoma formation in non-human primates is most commonly associated with which of the following?

- A. Factor VIII deficiency
- B. *Bacillus anthracis* infection
- C. **Absence of L- gulonolactone oxidase**
- D. Absence of 1-alpha hydroxylase

Abee et al. NHP in biomed. Research V.2, page 660

18. Which of the following is the most common vascular lesion documented in wild urban rats?

A. Aortic tunica media mineralization

B. Hypertrophy in pulmonary arterioles

C. Atherosclerosis

D. Multifocal mesenteric arteritis

Survey of Cardiovascular Pathology in Wild Urban *Rattus norvegicus* and *Rattus*

Rattus. *Veterinary Pathology*. 2015, Vol. 52(1) 201-208

19. Which of the following factors may help differentiate intestinal lymphoma from inflammatory bowel disease (IBD) in the dog with intestinal biopsy samples?

A. Significantly higher Ki67 index

B. Predominantly monomorphic lymphocytic infiltrate

C. Presence of intraepithelial lymphocytes

D. All of the above

Distinguishing Intestinal Lymphoma from Inflammatory Bowel Disease in Canine Duodenal Endoscopic Biopsy Samples. *Vet Pathol*. 2015. 52(4). 668-675.

20. Aleutian Disease Virus typically causes which type of inflammation in the spleen of striped skunks?

A. Plasmacytic

B. Histiocytic

C. Eosinophilic

D. Lymphohistiocytic

(Ref: Aleutian Disease. *Vet Pathol*. 2015, issue 6)

21. Which of the following characteristics most accurately describes osteochondrosis as it occurs in horses?

A. May lead to subchondral bone cyst formation

B. Occurs secondary to a defect in Fibroblast growth factor 3

C. Earliest lesion involves cartilage necrosis in the deep growth cartilage

D. May involve vasculitis in epiphyseal growth cartilage

An Update on the Pathogenesis of Osteochondrosis. Vet Pathol. 2015 52(5). 785-802.

22. What is the most common lesion in California sea lions infected with hypervirulent *Klebsiella pneumoniae*?

A. Necrotizing rhinitis

B. Necrosuppurative interstitial pneumonia

C. Suppurative bronchopneumonia

D. Pyothorax

(Ref: Hypervirulent *Klebsiella pneumoniae* in California sea lions: pathologic findings in natural infections. Vet Pathol, 2017, issue 5)

23. Which of the following findings is most likely in a sheep with osteogenesis imperfecta?

A. Brachygnathia inferior

B. Physeal thickening

C. Bruising of the skin

D. Pink teeth

Approach to Investigating Congenital Skeletal Abnormalities in Livestock. Vet Pathol. 2015. 52(5). 851-861.

24. Which of the following is considered one of the most common histologic bone lesions in equine vertebral stenotic myelopathy?

A. Osteopenia and cortical thinning

B. Retained cartilage matrix spicules

C. Trabecular microfractures

D. Articular facet arthritis

Cervical Vertebral Lesions in Equine Stenotic Myelopathy. Vet Pathol. 2015. 52(5). 919-927.

25. Which of the following histologic changes is most commonly seen in equine laminitis?

A. Epidermal lamellar spongiosis

- B. Increased medullary adipose tissue in P3/distal phalanx
- C. Periosteal proliferation of bone in P3/distal phalanx
- D. **Epidermal lamellar necrosis**

Osteopathology in the Equine Distal Phalanx Associated With the Development and Progression of Laminitis. 2015 Vet Pathol. 52(5). 928-944.

26. Contagious equine metritis, a venereal disease of mares, is caused by?

- A. *Klebsiella pneumoniae*
- B. *E. coli*
- C. ***Taylorella equigenitalis* (JKP vol 3, pg 388)**
- D. *Staphylococcus aureus*

27. Fibropapillomatosis has been associated with what virus in Hawaiian green sea turtles?

- A. Chelonid herpesvirus 1
- B. Chelonid herpesvirus 3
- C. **Chelonid herpesvirus 5**
- D. Chelonid herpesvirus 7

(Ref: Dynamics of virus shedding and in situ confirmation of chelonid herpesvirus 5 in Hawaiian green turtles with fibropapillomatosis. Vet Pathol. 2015, issue 6)

28. What is the hallmark finding in cats with chronic Vitamin A toxicity?

- A. Fibrous osteodystrophy of the skull bones
- B. **Extensive exostoses and ankyloses of cervical vertebrae (JKP vol 1, pg 88)**
- C. Squamous epithelial hyperkeratosis of haired skin
- D. Squamous metaplasia of Parotid salivary gland duct epithelium

29. Extraskelatal chordomas in zebrafish may be found in which of the following anatomic locations most commonly?

- A. Esophagus

B. Swim bladder

C. Intestine

D. Kidney

Primary Intestinal and Vertebral Chordomas in Laboratory Zebrafish (*Danio rerio*)

Veterinary Pathology. 2015, Vol. 52(2) 388-392

30. Which of the following agents is commonly associated with mastitis in rabbits?

A. *Pasteurella multocida*

B. *Staphylococcus aureus*

C. *E. Coli*

D. *Streptococcus agalactiae*

Barthold, Griffey, Percy, 4th ed. pg 286

31. Merkel cell tumors in the cat have which of the following characteristics?

A. Polygonal cells arranged in chords histologically

B. Low N:C ratio on cytology

C. Positive for CK20

D. Negative for p63

Clinical and Pathologic Study of Feline Merkel Cell Carcinoma With Immunohistochemical characterization of Normal and Neoplastic Merkel Cells. *Vet Pathol.* 2015. 52(6). 1012-1018.

32. Which of the following factors is highly expressed in the majority of canine perivascular wall tumors?

A. Ki67

B. PDGFB

C. TGFβ1

D. COX-2

Growth Factors and COX2 Expression in Canine Perivascular Wall Tumors. *Vet Pathol.* 2015. 52(6). 1034-1040.

33. Feeding a diet high in spinach to *Rana sylvatica* tadpoles causes what lesion?

A. Goiter

B. Oxalate nephrosis

C. Metabolic bone disease

D. Encephalomalacia of the brainstem

(Ref: calcium oxalate nephrolithiasis and tubular necrosis in recent metamorphs of *Rana sylvatica* fed spinach during the premetamorphic stage. *Vet Pathol.* 2015, issue 2)

34. In the equine neurologic condition “Shivers” which of the following most accurately describes spheroids within Purkinje cell axons located in the deep cerebellar nuclei?

A. Calretinin positive

B. Calbindin negative

C. Glutamic acid decarboxylase positive

D. Non phosphorylated neurofilament positive

The Equine Movement Disorder “Shivers” Is Associated With Selective Cerebellar Purkinje Cell Axonal Degeneration. *Vet Pathol.* 2015. 52(6). 1087-1098.\

35. Periostin expression in canine skin in cases of atopic dermatitis is most intense at what location?

A. Dermal – epidermal junction

B. Stratum basale

C. Around hair follicles

D. In outer root sheath epithelium

Expression of Periostin in Normal, Atopic, and Nonatopic Chronically Inflamed Canine Skin. *Veterinary Pathology* 2015, Vol. 52(6) 1118-1126.

36. Which of the following pancreatic lesions is commonly encountered in callitrichid species (ie marmosets and tamarins)?

A. Exocrine lobular hyperplasia

B. Islet hyperplasia

C. Insulinoma

D. Lobular atrophy

Abee et al. NHP in biomed. Research V.2, page 99

37. Which of the following mucins is not normally found in the pig colon, but is produced in cases of swine dysentery, resulting in an overall increase in mucin production?

A. Mucin 4

B. Mucin 3AB

C. Mucin 2

D. **Mucin 5AC**

Swine Dysentery: Etiopathogenesis and Diagnosis of a Reemerging Disease. Veterinary Pathology 2017, Vol. 54(1) 22-31.

38. Serosal colonization and intravascular bacteria in the small intestine of cats is most common in which of the following conditions?

A. Small cell lymphoma

B. Lymphocytic-plasmacytic enteritis

C. Muroid enteropathy

D. **Large cell lymphoma**

Identification of Mucosa-Invading and Intravascular Bacteria in Feline Small Intestinal Lymphoma. Veterinary Pathology 2017, Vol. 54(2) 234-241.

39. Viral replication of frog virus 3 (ranavirus) occurs in wood frogs most commonly in what organ?

A. Liver

B. Brain

C. Heart

D. **Skin**

(Ref: Pathogenesis of frog virus 3 (ranavirus, iridovirus) infection in wood frogs (*rana sylvatica*). Vet Pathol. 2017, issue 3)

40. What is the most common skeletal site for metastasis of urothelial carcinoma in the dog?

A. **Vertebrae**

B. Pelvis

C. Rib

D. Skull

Skeletal Metastasis of Canine Urothelial Carcinoma: Pathologic and Computed Tomographic Features. *Veterinary Pathology* 2017, Vol. 54(3) 380-386.

41. Vasa Vasorum arteriopathy in cats is strongly associated with which of the following conditions?

A. Hypertrophic cardiomyopathy

B. Pulmonary artery hypertension

C. **Aortic degeneration**

D. Chronic kidney disease

Vasa Vasorum Arteriopathy: Relationship With Systemic Arterial Hypertension and Other Vascular Lesions in Cats. *Veterinary Pathology*. 2017, Vol. 54(3) 475-483.

42. In the pig, intestinal crypt epithelium in the medullary sinuses of mesenteric lymph nodes can be associated with?

A. Transmissible gastroenteritis virus (TGEV)

B. PCV 2

C. ***Lawsonia intracellularis* (JKP vol 3, pg 202)**

D. Shiga toxin producing *E. coli* (STEC)

E. *Clostridium perfringens* type C

43. Canine chronic ulcerative stomatitis is characterized by which of the following histologic features?

A. Mucosal basilar cleft formation

B. Sub-epithelial eosinophilic stomatitis

C. Sub-epithelial lymphoid nodules

D. **Lichenoid lymphoplasmacytic inflammation**

Clinical and Histopathologic Characterization of Canine Chronic Ulcerative Stomatitis. *Veterinary Pathology* . 2017, Vol. 54(3) 511-519.

44. Which of the following lesions is most commonly associated with Rat Parvovirus (Kilham's rat virus)?

- A. **Cerebellar hemorrhage**
- B. Bone marrow hypocellularity
- C. Myocarditis
- D. Dental malformations

Barthold, Griffey, Percy, 4th ed. pg 124

45. Fibroblast growth factor 23 binds to the klotho receptor complex in which of the following tissues / cells, leading to a decrease in phosphorus?

- A. Thyroid gland parafollicular cells
- B. Duodenum epithelium
- C. Osteoclasts in trabecular bone
- D. **Renal tubule epithelium**

Fibroblast Growth Factor 23: A New Dimension to Diseases of Calcium-Phosphorus Metabolism. Vet Pathol. 2015. 52(5). 770-784.

46. Which of the following is considered a predisposing factor for the development of chronic progressive nephropathy in rats?

- A. Dietary calcium level
- B. Adrenal cortical hypertrophy
- C. Wistar strain
- D. **Prolactin level**

Barthold, Griffey, Percy, 4th ed. pg 157

47. What is the most frequent histologic finding of pigeon paramyxovirus infection in Eurasian collared-doves and rock pigeons?

- A. Random Hepatitis
- B. **Tubulointerstitial nephritis**

- C. Myocarditis
- D. Retinitis and choroiditis

(Ref: Natural infections with pigeon paramyxovirus serotype 1: pathologic changes in Eurasian collared-doves and rock pigeons in the US. Vet Pathol. 2017, issue 3)

48. Which of the following is considered an age associated lesion in the pancreas of rats?

- A. **Islet fibrosis**
- B. Islet amyloidosis
- C. Exocrine lobular hyperplasia
- D. Exocrine lobular atrophy

Barthold, Griffey, Percy, 4th ed. pg 157

49. Koalas with *Chlamydia pecorum* infection frequently develop chlamydial inclusions in:

- A. Prostatic epithelium
- B. **Sertoli cells**
- C. Testicular germinal cells
- D. Leydig cells

(Ref: Orchitis and epididymitis in koalas with *C. pecorum*. Vet Pathol. 2015, issue 6)

50. What is considered the most common cause of non-infectious dyspnea in mice?

- A. **Atrial thrombosis and heart failure**
- B. High levels of pneumonia in the bedding
- C. Pulmonary thromboembolism
- D. Pulmonary adenocarcinoma

Barthold, Griffey, Percy, 4th ed. pg 99

51. Fatal fasting syndrome in obese macaques is most commonly associated with which of the following lesions?

- A. Ulcerative gastritis
- B. Atherosclerosis

C. Glomerular lipidosis

D. **Foci of pancreatic necrosis**

Abee et al. NHP in biomed. Research V.2, page 613

52. Which of the following is considered a characteristic histologic finding of canine hypertrophic gastritis?

A. **Hyperplasia of mucous cells with loss of chief and parietal cells**

B. Glassy cell change in gastric glands with mineralization

C. Hyperplastic polypoid mucosal proliferation with a fibrovascular core

D. Hyperplasia in gastric pits with marked granulomatous inflammation

Canine Gastric Pathology: A Review. Journal of Comparative Pathology Volume 154, Issue 1, January 2016, Pages 9-37

53. Which of the following lesions is most commonly seen in naturally occurring highly pathogenic avian influenza outbreak on commercial turkey farms?

A. Lymphocytic hepatitis with necrosis

B. Bilateral anterior uveitis and conjunctivitis

C. Marked splenomegaly with hemorrhage

D. **Cecal tonsil mucosal necrosis**

Outbreak of highly pathogenic avian influenza in Minnesota in 2015: lessons learned. Journal of Veterinary Diagnostic Investigation 2017, Vol. 29(2) 169 –175.

54. Kenogen refers to which of the following stages of hair follicle development?

A. Growth phase

B. **Quiescent phase with club hair absent**

C. Regression phase with club hair absent

D. Regression phase with club hair present

The Hair Follicle: A Comparative Review of Canine Hair Follicle Anatomy and Physiology. Tox Pathol. 2016. 44(4). 564-574.

55. What is the most likely predictor of metastasis for cutaneous chromatophoromas in snakes?

A. Nuclear atypia

B. Lymphatic invasion

C. Mitotic count

D. Ulceration

(Ref: Cutaneous chromatophoromas in captive snakes. Vet Pathol. 2016, issue 6)

56. Which of the following is NOT a primary location of PCV2 antigen in pigs with granulomatous and necrotizing myositis?

A. Satellite cells (Vet Path 2018, Vol 55(2) 268-272)

B. Macrophages

C. Lymphocytes

D. Multinucleated giant cells

57. A diagnostic test with 50% specificity is performed on a population of 1000 animals, and results in 600 positive and 400 negative results. There are 100 false positives. What is the true prevalence of disease in the population?

A. 33%

B. 50%

C. 60%

D. 75%

E. 80% (D&P:377)

58. What is the most likely diagnosis in a dog with the following laboratory findings:

- Moderately elevated ALT & AST
- Markedly elevated GGT & ALP
- Normal serum albumin and plasma ammonia
- Elevated conjugated bilirubinemia

A. Acute massive hepatic necrosis (toxic hepatopathy)

B. Cholangitis/cholangiohepatitis

- C. PSS
- D. Hepatic failure

59. What is agent that causes proliferative gill disease?

- A. Loma salmonae
- B. Henneguya ictaluri**
- C. Epitheliocystis
- D. Tetracapsuloides bryosalmonae

Fish disease diagnosis and treatment, Noga. 2nd edition. Page 236

60. The most commonly expressed IHC in canine liposarcoma is?

- A. Desmin
- B. alpha-SMA
- C. UCPI (Vet Path 2017, Vol 54(6) 885-891)**
- D. Myogenin

61. With retinal detachment in cats infected with FIP, what cell population in the retina commonly proliferates?

- A. Photoreceptor cells
- B. Müller cells (Vet Path 2017, Vol 54(6) 933-944)**
- C. Cells of the inner nuclear layer
- D. Cells of the outer nuclear layer
- E. Ganglion cells

62. Which of the following immunohistochemical labeling patterns is seen in Rhesus Macaques with large intestinal adenocarcinoma?

- A. Decreased P53 labeling
- B. Decreased SIRT1 labeling**
- C. Loss of CK7 labeling

D. Increased CK20 labeling

Immunohistochemical Characterization of Large Intestinal Adenocarcinoma in the Rhesus Macaque (*Macaca mulatta*). *Vet Pathol.* 2015. 52(4). 732-740.

63. Clinically, *Anaplasma marginale* infection in cattle is best characterized by?

A. Hemoglobinemia

B. Hemoglobinuria

C. Leukopenia

D. Bilirubinemia (JKP vol 3, pp 116-117)

64. Which of the following agents causes “ear canker” in rabbits, characterized by obligate non-burrowing parasites that chew and pierce epidermal layers of the external ear?

A. *Cheyletiella parasitovorax*

B. *Psoroptes cuniculi*

C. *Psorobia lagomorpha*

D. *Sarcoptes scabiei*

Barthold, Griffey, Percy, 4th ed. pg 303

65. What IHC marker can be used to help distinguish Acute lymphoid leukemia (ALL) from stage V leukemic lymphoma?

A. CD3

B. CD4

C. CD8

D. CD21

E. CD34 (JKP vol 3, pp 132-133)

66. In the pig, the most common cause of jowl abscesses (cervical lymphadenitis) is?

A. *Streptococcus porcinus* (JKP vol 3, pg 208)

B. *Streptococcus suis*

C. *Staphylococcus aureus*

D. *Pasteurella multocida*

E. *Eubacterium suis*

67. In some cases of feline post-traumatic sarcoma, positivity for which IHCs can confirm this neoplasm is of lens epithelial origin?

A. Vimentin and S100

B. Vimentin and Collagen type IV

C. Cytokeratin and vimentin

D. Collagen type IV and Crystallin alpha A (JKP vol 1, pg 486)

68. Which of the following tends to be decreased in obese animals?

A. HMW adiponectin (D&P:190)

B. Leptin

C. Resistin

D. Triglyceride

69. Which type of virus is avian nephritis virus?

A. Arbovirus

B. Coronavirus

C. Adenovirus

D. Astrovirus

Avian disease manual 7th ed. Pg 29

70. Which of the following *decreases* synthesis of non-esterified fatty acids (NEFAs)?

A. Corticosteroids

B. Hormone sensitive lipase

C. Insulin (<http://ahdc.vet.cornell.edu/clinpath/modules/chem/NEFA.htm>) – note, this is reversed in D&P p185

D. Negative energy balance

71. Which of the following would be considered one of the MOST COMMON causes of pulmonary thromboembolism?

A. Aortic neoplasia

B. Hypoadrenocorticism

C. Hyperthyroidism

D. Pancreatitis

JKP 6th ed. Vol. 2 page 489

72. All of the following *except* ____ promote glycogenolysis.

A. Epinephrine

B. Corticosteroids (D&P:191-192)

C. Glucagon

D. Growth hormone

73. Which of the following is characterized by an inability of the renal tubular renal epithelial cells to secrete hydrogen ions?

A. Fanconi-like syndrome

B. Paradoxical aciduria

C. Distal renal tubular acidosis (D&P:263)

D. Proximal renal tubular acidosis

74. The agent that causes infectious bronchitis in chickens may also characteristically cause what other lesion?

A. Interstitial nephritis

B. Epicardial petechiae

C. Bursal lymphoid necrosis

D. Multifocal hepatic necrosis

Avian Disease Manual pg 52

75. A urine protein:creatinine ratio in a dog of 2.0 is most consistent with:

- A. Normal
- B. Tubular disease (D&P:259)**
- C. Renal amyloidosis
- D. Glomerulonephropathy