

2013 Miniboard Exam
Small Animal Blank

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1. In cats with chronic kidney disease, which of the following histologic findings best correlates with the severity of azotemia, hyperphosphatemia, anemia, and proteinuria?
 - a. Glomerulosclerosis
 - b. Interstitial inflammation
 - c. Interstitial fibrosis
 - d. Tubular mineralization
 - e. Tubular epithelial degeneration

2. In dogs with meningioma, infiltrating lymphocytes are most commonly positive for which of the following immunohistochemical markers?
 - a. CD3
 - b. FoxP3
 - c. CD79a
 - d. CD11d
 - e. CD45RA

3. In dogs, osteosarcomas frequently express which of the following immunohistochemical markers?
 - a. RPMI 1640
 - b. 5-lipoxygenase
 - c. Cyclooxygenase-1
 - d. Cyclooxygenase-2
 - e. Dimethyl sulfoxide

4. In cats, which gene is important in conferring resistance to replication of feline immunodeficiency virus (FIV)?
 - a. SDHD
 - b. CRZBBP
 - c. GADD45
 - d. TRIMCyp
 - e. p16INK4a

5. Inclusions in the chondrocytes of all zones of the physis is a characteristic histologic feature of chondrodysplasia in which breed of dog?
 - a. English pointer
 - b. Great Pyrenees
 - c. Alaskan Malamute
 - d. Norwegian Elkhound

- e. Miniature poodle
6. A deletional mutation in which of the following genes is responsible for defective hepatocellular copper metabolism in Bedlington terriers?
- a. MUM-1
 - b. TYR-1
 - c. CHS-1
 - d. PKD-1
 - e. MURR-1
7. Which of the following is LEAST helpful in distinguishing lymphocytic cholangitis from hepatic lymphoma in the cat?
- a. Degree of clonality of lymphocytes
 - b. Bile duct targeting of lymphocytes
 - c. Bile ductopenia
 - d. Portal lipogranuloma formation
 - e. Peribiliary fibrosis
8. Which of the following liver anomalies is characterized by portal HYPotension?
- a. Congenital porto-systemic shunt
 - b. Acquired porto-sustemic shunt
 - c. Congenital intrahepatic arterio-venous fistulae
 - d. Hepato-portal microvascular dysplasia
 - e. Primary hypoplasia of the portal vein
9. Expression level of ALL BUT WHICH of the following genes was significantly higher in dogs with hepatic failure related symptoms?
- a. TGF β 1
 - b. MMP 2
 - c. COL1A 1
 - d. PDGFB
 - e. TIMP 1
10. Which of the following is the most common congenital cardiac defect in dogs?
- a. Subaortic stenosis
 - b. Patent ductus arteriosus
 - c. Pulmonic stenosis
 - d. Atrial septal defect
 - e. Ventral septal defect

11. A mutation in which of the following genes has been associated with osteogenesis imperfect in dachshund dogs?
- FGFR-3
 - SERPINH1
 - COL1A1
 - COL1A3
 - COL3A1
12. In dogs, which of the following is NOT positively correlated with a higher malignant potential when grading mammary carcinomas?
- Increasing age
 - Small breed size
 - Increased mitotic rate
 - Increased tubular profiles
 - Increased nuclear pleomorphism
13. In a recent retrospective study, what was the most commonly encountered neoplasm of the mammary gland of MALE dogs?
- Simple adenoma
 - Complex adenoma
 - Benign mixed mammary tumor
 - Simple carcinoma
 - Adenosquamous carcinoma
14. What was the predominant type of gastrointestinal lymphoma encountered in a recent study of 120 cats?
- Transmural T cell lymphoma
 - Large granular cell lymphoma
 - Mucosal T cell lymphoma
 - Centroblastic B cell lymphoma
 - Immunoblastic B cell lymphoma
15. Which pattern of sialic acid and sialyltransferase activity is most consistent with dogs with mammary tumors?
- Increased ST- α 2,3 and Increased ST- α 2,6
 - Decreased ST- α 2,3 and Decreased ST- α 2,6
 - Increased ST- α 2,3 and Decreased ST- α 2,6
 - Decreased ST- α 2,3 and Increased ST- α 2,6
 - Increased ST- α 2,3 and no change in ST- α 2,6

16. Osteosarcoma of which flat / irregular bone is associated with the greatest hazard of death in the dog?
- Pelvis
 - Scapula
 - Sternum
 - Rib
 - Vertebra
17. In feline amyloid-producing odontogenic tumors, neoplastic cells and amyloid material were immunohistochemically positive for which of the following?
- Amelogenin
 - Calretinin
 - S-100
 - GFAP
 - Ameloblastin
18. Which of the following histologic features of canine mammary carcinomas is LEAST predictive of biologic behavior?
- High histologic grade
 - Vasculogenic mimicry
 - Peripheral infiltrative pattern
 - Presence of micropapillary pattern
 - High mitotic index
19. Which type of lymphoma in the dog is associated with the longest survival time?
- Low grade T zone lymphoma
 - High grade peripheral T cell lymphoma
 - Centroblastic large B cell lymphoma
 - Immunoblastic large B cell lymphoma
 - Low grade B cell lymphoma
20. In dogs, which of the following histologic findings is most consistently seen in cases of granulomatous meningoencephalomyelitis (GME) BUT NOT in necrotizing meningoencephalitis (NME) or necrotizing leukoencephalitis (NLE)?
- Macrophages diffusely infiltrating cerebral cortex
 - Macrophages accumulating around blood vessels
 - Predominance of CD79+ lymphocytes
 - Predominance of IgG+ lymphocytes
 - Predominance of CD20+ lymphocytes

21. Which of the following is true regarding cats with low pathogenic avian influenza virus infection from shorebirds?
- Seroconversion is rare
 - Virus shedding is rare
 - Causes bronchointerstitial pneumonia
 - Causes mild clinical respiratory disease
 - Virus is localized to bronchial epithelium
22. Which of the following is the most behaviorally aggressive form of lymphoma in the dog?
- Diffuse large B cell lymphoma
 - Marginal zone lymphoma
 - Peripheral T cell lymphoma
 - T cell lymphoblastic lymphoma
 - T-zone lymphoma
23. In the dog, which of the following subtypes of osteosarcoma is associated with the WORST prognosis?
- Fibroblastic
 - Poorly differentiated
 - Giant cell
 - Telangiectatic
 - Chondroblastic
24. Collie eye anomaly has recently been linked to a deletion in which gene?
- NHEJ1
 - Rb
 - p53
 - NOD1
 - COL1A
25. Which of the following is found in significant quantities in both normal AND diseased mitral valves in dogs?
- TGF- β 1
 - TGF- β 3
 - α SMA
 - MMP-1
 - MMP-9