

Miniboard Exam 2011 Veterinary Pathology - Laboratory Animal

1. Which of the following is NOT a feature of Histiocytic Sarcoma in Mice:
 - A. Composed of round, fusiform, or mixed cell types
 - B. F4/80 immunohistochemically positive neoplastic cells
 - C. Mac-2 immunohistochemically positive neoplastic cells
 - D. PAX5 immunohistochemically positive neoplastic cells
 - E. Exhibition of only germline JH band with Southern blot analyses

2. Which of the following is NOT a characteristic of the monogenic form of Diabetes Mellitus in vervet monkeys:
 - A. Persistent fasting hyperglycemia
 - B. Hypertriglyceridemia
 - C. Islet amyloidosis
 - D. Normal islet insulin immunostaining
 - E. An autosomal dominant or mitochondrial inheritance pattern

3. Which of the following is NOT a characteristic of small intestinal carcinoma in common marmosets?
 - A. Loss of polarity within neoplastic cells
 - B. Increased membranous expression of E-cadherin and β -catenin
 - C. Lymphatic invasion and metastasis
 - D. Proliferation of neoplastic cells along the crypt to midvillous interface
 - E. Lack of Helicobacter organisms in areas of neoplastic transformation

4. All of the following are characteristics of congenital generalized lipodystrophy in *Agp2*^{-/-} mice EXCEPT:
 - A. Presence of metabolically active visceral and subcutaneous adipose tissue
 - B. Insulin resistance
 - C. Hypertriglyceridemia
 - D. Hepatic steatosis
 - E. Massive pancreatic islet hypertrophy

5. Which of the following is true concerning endometrial neoplasms in rabbits?
 - A. Papillary adenocarcinomas are predominantly ER-alpha positive and PR negative
 - B. Tubular adenocarcinomas are predominantly ER-alpha negative and PR negative
 - C. Papillary adenocarcinomas are predominantly ER-alpha negative and PR positive
 - D. Tubular adenocarcinomas are predominantly ER-alpha positive and PR positive
 - E. All of the above are false

6. With experimental Nipah viral infection in Guinea pigs which of the following tissues was LEAST affected?
 - A. Lung
 - B. Spleen
 - C. Lymph nodes
 - D. Brain
 - E. Uterus

7. Which of the following mouse strains is most susceptible to development of adrenocortical carcinomas?
 - A. FVB
 - B. C57BL
 - C. DBA
 - D. CE/J

E. NU/J

8. In the guinea pig, suppurative lymphadenitis is usually associated with infection by:

- A. *Streptococcus pneumoniae*
- B. *Streptococcus pyogenes*
- C. *Streptococcus zooepidemicus*
- D. *Staphylococcus aureus*
- E. *Corynebacterium kutscheri*

9. In the rat, infections of *Mycoplasma pulmonis* and CAR bacillus share the following features:

- A. Chronic suppurative bronchiolitis and peribronchiolar cuffing with lymphocytes and plasma cells
- B. Proliferative alveolitis with syncytial cells
- C. Interstitial pneumonia with perivascular lymphocytic infiltrates and marked alveolar histiocytosis
- D. Nonsuppurative vasculitis and interstitial alveolitis with necrosis
- E. Multifocal coagulative to caseating necrosis with leukocytic infiltration

10. Kurloff cells in the guinea pig are the counterpart of _____ in other species:

- A. Macrophages
- B. Metamyelocytes
- C. Plasma cells
- D. NK cells
- E. Follicular dendritic cells

11. In mice, multifocal acute hepatic necrosis with syncytial cells is a hallmark of disease caused by:

- A. Polytopic strains of murine corona virus
- B. Sendai virus
- C. Ectromelia virus
- D. Mouse adenovirus type 1
- E. Mouse adenovirus type 2

12. Lesions of natural infection with *Theilovirus* in SCID mice include:

- A. Proliferative and necrotizing dermatitis with ballooning degeneration and eosinophilic intracytoplasmic inclusions
- B. Necrotizing hepatitis with endothelial syncytia
- C. Nonsuppurative bronchointerstitial pneumonia with epithelial syncytia
- D. Vacuolation of enterocytes at tips of villi and acidophilic intracytoplasmic inclusions
- E. Neuronal, astrocytic and oligodendroglial vacuolation and enlargement in brain stem and ventral horn of spinal cord

13. In mice with situs inversus, which of the following statements is FALSE:

- A. Pkd111^{-/-} mice had hydrocephalus, sinusitis, and male infertility
- B. Situs inversus is a left to right transposition of the thoracic and visceral organs
- C. Dpcd/Poll^{-/-} mice had situs inversus, hydrocephalus, sinusitis, and male infertility
- D. Situs inversus results in a ciliary motility problem
- E. Nme7^{-/-} mice had situs inversus and hydrocephalus

14. Regarding spontaneous hibernomas in rats, which of the following statements is FALSE:

- A. A common strain affected is the Sprague Dawley rat
- B. The genetic defect is from the UCP-1 gene, (thermogenin)
- C. The abdominal cavity is the most commonly affected site
- D. Males get this more frequently than females
- E. Hibernomas are tumors of brown fat

15. Concerning an outbreak of fatal herpesvirus infection in domestic rabbits in Alaska, lesions were found in all of the following organs except:

- A. Skin
- B. Heart
- C. Spleen
- D. Lung
- E. Liver

16. *Baccharis pteroniodes* toxicity in hamsters causes:

- A. Hemorrhagic infarcts of the liver and kidney
- B. Necrotizing vasculitis of the hepatic and renal vessels
- C. Cardiac necrosis
- D. A, B, &C
- E. A &B

17. Thyroidectomized rats have all of the following histopathologic changes EXCEPT:

- A. Epidermal thinning
- B. Hair follicle in the anagen phase
- C. Hair follicular atrophy
- D. Hair bulb and papillae involution
- E. Hair follicle atrophy involving thinning of ORS and IRS

18. The main histomorphologic feature of tumor cells in uterine granular cell tumors of B6C3F1 mice is:

- A. Scattered S-100 immunoreactivity
- B. Multifocal NSE immunoreactivity
- C. Multifocal to diffuse alpha smooth muscle actin immunoreactivity
- D. Presence of abundant cytoplasmic PAS + eosinophilic granules
- E. Atypical multinucleated giant cells

19. In male Lewis rats administered short-term, low-dose Rotenone common lesions were in all of the following except:

- A. Thalamus
- B. Circle of Willis
- C. Hypothalamus
- D. Medulla oblongata
- E. Small arteries and arterioles of the brain

20. Large, eosinophilic, cytoplasmic inclusions are sometimes seen in Clara cells of the rat lung and are associated with administration of:

- A. Inhaled polychlorinated bioamines
- B. Inhaled short-term, low dose NSAID toxicity
- C. Inhaled corticosteroids
- D. Avirulent, novel rat picornavirus
- E. Repeated sevofluorane administration

21. Macaques coinfecting with Rhesus Rhadinovirus and SIV develop which of the following?

- A. Generalized lymphoid depletion
- B. Hypogammaglobulinemia
- C. Marked B cell lymphocytosis
- D. Angiofollicular lymphoid hypoplasia
- E. Oral leukoplakia

22. All of the following are true concerning Yaba pox in macaques except:
- A. Infects subcutaneous mesenchymal cells
 - B. Causes benign histiocytosis
 - C. Affects head and limbs
 - D. Infects epithelial cells
 - E. Zoonotic
23. Spontaneous coagulopathy in inbred WAG/RijYcb rats is due to a defect in which of the following:
- A. Intrinsic system of coagulation
 - B. Common pathway of coagulation
 - C. Extrinsic system of coagulation
 - D. Both the intrinsic and extrinsic systems
 - E. None of the above
24. Which of the following is NOT true concerning spontaneous mammary tumors in Siberian hamsters?
- A. Most are immunohistochemically androgen positive
 - B. All are progesterone positive
 - C. Estrogen positivity is variable
 - D. Malignant mammary tumors are focally infiltrative with no invasion of lymphatics or blood vessels
 - E. All tumors have apocrine secretion
25. Metrial glands in the female rat have all of the following features except:
- A. Located at the mesometrial triangle
 - B. Contains granulated metrial gland cells
 - C. Contains endometrial stromal cells
 - D. Contains trophoblasts
 - E. Only found in the gravid uterus