

**AFIP MINIBOARD EXAMINATION
MAY 2008**

LARGE ANIMAL PATHOLOGY

1. Which of the following causes both necrotizing orchitis and abortion?

- A. *Brucella ovis*
- B. *Brucella abortus*
- C. *Neospora caninum*
- D. Bovine herpesvirus – 1
- E. *Tritrichomonas foetus*

2. Regarding Equine Multinodular Pulmonary Fibrosis, all of the following are true EXCEPT:

- A. Grossly, there are multiple nodules of fibrosis throughout the lung
- B. Histologically, there is marked interstitial fibrosis
- C. Airways contain primarily lymphocytes and macrophages
- D. Rare macrophages contain large eosinophilic intranuclear inclusion bodies
- E. Equine herpesvirus-5 was detected in all affected horses

3. *Rhodococcus equi* infection in foals results in:

- 1. Ulcerative stomatitis
 - 2. Ulcerative enterocolitis
 - 3. Bronchopneumonia
 - 4. Lymphoplasmacytic myocarditis
- A. 1, 2
 - B. 1, 3
 - C. 2, 3
 - D. 2, 4
 - E. 2, 3, 4

4. In horses, Summer Pheasant's Eye (*Adonis aestivalis*) results in:

- A. Granulomatous myositis
- B. Acute renal tubular necrosis
- C. Acute hepatocellular necrosis
- D. Lymphoplasmacytic hepatitis
- E. Acute myocardial necrosis

5. Regarding exertional rhabdomyolysis in horses, all of the following are true EXCEPT:

- A. Affected horses are typically also affected with polysaccharide storage myopathy
- B. Affected horses most often manifest with symptoms after exhaustive exercise
- C. Levels of both serum CK and AST are elevated
- D. Affected fibers are primarily type 2 fibers
- E. Vitamin E and selenium deficiency is not considered a primary cause

6. Vesicular stomatitis occurs in which of the following animals?

- 1. Horse
 - 2. Pig
 - 3. Ox
 - 4. Sheep
 - 5. Goat
- A. 1
 - B. 1, 2
 - C. 1, 2, 3
 - D. 1, 2, 3, 4
 - E. 1, 2, 3, 4, 5

7. All of the following describe freemartinism EXCEPT:

- A. Most common chimera in domestic animals
- B. Placental vascular anastomoses are essential to the pathogenesis
- C. Represents XX pseudohermaphroditism
- D. Vagina, vestibule and vulva are hypoplastic
- E. Is a type of true hermaphroditism

8. All of the following are associated with porencephaly in large animals EXCEPT:

- A. Ovine orbivirus
- B. Akabane disease
- C. Rift Valley fever
- D. Bovine pestivirus
- E. Bovine morbillivirus

9. Regarding Clostridium difficile-associated disease (CDAD) infection in neonatal pigs, which of the following are true:

- 1. There are two major exotoxins, toxin A and toxin B
 - 2. Toxin A is a potent enterotoxin
 - 3. The effects of toxin A are dependent on receptor-mediated endocytosis
 - 4. Toxin B is an effective cytotoxin
 - 5. Toxin B does not bind receptors on intact mucosal epithelium
- A. 1, 2
 - B. 1, 2, 3
 - C. 1, 2, 4
 - D. 1, 2, 3, 4
 - E. 1, 2, 3, 4, 5

10. All of the following peptides are increased in plasma of horses with adenoma of the pars intermedia EXCEPT:

- A. ACTH
- B. CLIP
- C. α -MSH
- D. β -MSH
- E. β -END

11. Arthrogryposis has been associated with ingestion of which of the following plants in cattle:

- A. Poison hemlock
- B. False hellebore
- C. Brown hops
- D. Day-blooming jessamine
- E. Lupins

12. Arterial medial calcification may occur in all the following conditions EXCEPT:

- A. Vitamin-D toxicosis
- B. Renal insufficiency
- C. Calcinogenic plant toxicosis
- D. Vitamin-E deficiency
- E. Johne's disease

13. Porcine circovirus-2-associated disease can manifest as which of the following:

1. A systemic disease
2. As part of the respiratory disease complex
3. As an enteric disease
4. As Porcine dermatitis and nephropathy syndrome
5. As a reproductive disease

- A. 1, 2, 4
- B. 1, 4, 5
- C. 1, 2, 4, 5
- D. 1, 3, 4, 5
- E. 1, 2, 3, 4, 5

14. Contagious equine metritis in mares is caused by:

- A. *Taylorella equigenitalis*
- B. Equine herpesvirus - 4
- C. *Tritrichomonas foetus*
- D. *Trypanosoma equiperdum*
- E. *Campylobacter fetus*

15. Which of the following is true regarding West Nile Virus in horses:

- A. Commonly affects the cerebellum
- B. Brainstem is usually spared
- C. Inflammation is neutrophilic
- D. Lesions are more pronounced in the white matter
- E. Commonly affects the thoracolumbar spinal cord

16. Regarding nephritis in pigs with naturally occurring Postweaning Multisystemic Wasting Syndrome, all of the following are true, EXCEPT:

- A. The inflammation may be tubulointerstitial
- B. The inflammation may be glomerular
- C. The inflammation may be lymphoplasmacytic
- D. The inflammation may be granulomatous
- E. PCV-2 is found most consistently in renal tubular epithelium

17. A carcinogen contained in bracken fern is

- A. Thiaminase
- B. Ptaquiloside
- C. Bleeding factor
- D. Uroplakin
- E. Pteridium

18. Regarding spider lamb syndrome, all of the following are true EXCEPT:

- A. It is primarily a disease of black-faced sheep
- B. A point mutation is the cause of this syndrome
- C. The histologic appearance reflects disorganization of chondrocytes in articular and physal cartilage and multiple foci of chondrolysis
- D. Affected animals often exhibit valgus deformities and scoliotic/kyphotic changes in the spine
- E. Most affected animals with this semi-lethal trait are born alive

19. All are associated with porcine circovirus type 2 infection EXCEPT:
- A. Reproductive disorders
 - B. Postweaning multisystemic wasting syndrome
 - C. Myocardial degeneration and necrosis
 - D. Porcine dermatitis and nephropathy syndrome
 - E. Meningoencephalitis and vasculitis
20. The most sensitive and specific diagnostic indicator for equine polysaccharide storage myopathy is:
- A. Myocyte atrophy
 - B. Amylase-sensitive glycogen
 - C. Subsarcolemmal vacuolation
 - D. PAS-positive intracytoplasmic inclusions
 - E. Amylase-resistant abnormal polysaccharide
21. Equine chorionic gonadotropin is produced in the:
- A. Endometrial cups
 - B. Corpus luteum
 - C. Adrenal cortex
 - D. Amniotic plaques
 - E. Anterior pituitary

22. The cause of jowl abscess in swine is:

- A. *Actinobacillus suis*
- B. *Streptococcus suis*
- C. *Mycobacterium avium*
- D. *Streptococcus porcinus*
- E. *Erysipelothrix rhusiopathiae*

23. Dermatitis vegetans in young pigs is associated with all of the following EXCEPT:

- A. Erythematous papules on the ventral abdomen and medial thighs
- B. Irregular epidermal erosions
- C. Orthokeratotic and parakeratotic hyperkeratosis
- D. Hoof malformations
- E. Giant cell pneumonia

24. Which of the following is true of *Veratrum californicum* ingestion in pregnant sheep:

1. If ingested on day 14, a syndrome of severe craniofacial abnormalities occurs
2. If ingested on/around day 28, offspring will have markedly foreshortened limbs
3. Cycloposine is the toxic alkaloid resulting in the craniofacial defects
4. If ingested around day 28, there are no clinically noticeable changes in offspring
5. Chronic ingestion of *Veratrum californicum* results in prolonged uterine contractions and arthrogryposis of offspring

- A. 1
- B. 1, 2
- C. 1, 2, 4
- D. 1, 3, 5
- E. 2, 3, 5

25. Bovine enzootic hematuria is caused by:

- A. Bracken fern ingestion
- B. *Clostridium perfringens* type A
- C. Lead arsenate ingestion
- D. Pigweed (*Amaranthus*) ingestion
- E. *Leptospira interrogans* serovar *balcanica*