Hayley Stratton

CBS 817

10/5/23

Andrews, Blake J., et al. "Blood concentration of symmetric dimethylarginine correlates with kidney damage as assessed with a proposed histologic grading system for chronic kidney disease in tigers (Panthera tigris)." *Journal of the American Veterinary Medical Association* 260.13 (2022): 1-8.

**Practice Question:**

Which of the following biomarkers has the greatest correlation to histologic kidney changes in tigers with chronic kidney disease?

A. Blood urea nitrogen

B. Creatinine

C. Phosphorus

**D. Symmetric dimethylarginine**

E. Urine specific gravity

Mota, Stéphanie M., João Brandão, and Amanda Guthrie. "Comparison of blood symmetric dimethylarginine and creatinine as endogenous markers of kidney function in captive tigers (Panthera tigris)." *Journal of Zoo and Wildlife Medicine* 52.2 (2021): 628-637.

**Practice Question:**

Which of the following statements is true regarding the influence of age, sex, and subspecies on renal biomarkers in tigers?

A. SDMA increased significantly as age increased

B. Amur tigers demonstrated a higher blood creatinine concentration that Sumatran tigers

**C. There was no association between age nor subspecies and SDMA concentrations**

D. Creatinine was significantly higher in female tigers

E. Sumatran tigers demonstrated higher SDMA concentrations than Amur tigers

Cushing, Andrew C., et al. "Method comparison for measurement of symmetric dimethylarginine in tigers (*Panthera tigris*)." *Journal of Zoo and Wildlife Medicine* 53.1 (2022): 200-203.

**Practice Question:**

Which of the following renal lesions is the most common lesion documented in non-domestic felids?

A. Renal papillary necrosis

**B. Tubulointerstitial nephritis**

C. Glomerulonephritis

D. Renal lymphoma

E. Renal amyloidosis

*JZWM* 2021 52(3):886-892

[**Biomarkers Of Gastrointestinal Disease In Cheetahs (*Acinonyx jubatus*)**](https://doi.org/10.1638/2021-0012)

Fox L, Haefele H, Uelmen J, et al

**Practice Question:** Which of the following is true regarding markers of gastrointestinal disease in cheetahs?

1. Gastrin may be a useful marker of gastritis
2. fTLI may be a useful marker of EPI
3. MMA may be a useful marker of cellular cobalamin levels
4. fPLI increased with age in cheetahs
5. Cobalamin was higher in females than males

Answer: A

*JZWM* 2023 53(4):744-754

[**Determination Of Specific Enteropathogen Presence In Captive Cheetahs (*Acinonyx jubatus*) Fed Various Diets Using Fluorescence In Situ Hybridization**](https://doi.org/10.1638/2022-0023)

Peel M, Torres RG, Hernández BA, Oakley BB

**Practice Question:** Cheetahs (*Acinonyx jubatus*) under managed care had a significantly higher prevalence of soft feces with which of the following?

1. Fed whole carcasses
2. Fed pelleted diets
3. *Helicobacter* spp. infection
4. *Campylobacter* spp. infection
5. *Clostridium perfringens* spp. infection

Answer: A

Which of the following is true in regards to brain lesions of large felids?

1. Lymphoma is a commonly found lesion on histopathology
2. Chiari-like formations in lions is associated with hypovitaminosis E
3. Cryptococcus is the most common fungal lesion
4. There are no reports of identification of Alzheimer type II astrocytes
5. Amorphic globules are commonly found in lions and tigers

Answer: E; lymphoma is common in small domestics (large felids commonly had meningioma), Chari-like formation in lions is associated with hypovitaminosis A, Blastomycosis was the most common fungal lesion, and two cats had ID of Alzheimer type II astrocytes

Which of the following can lead to increased folate in exocrine pancreatic insufficiency in tigers?

1. Hyperkalemia
2. Ileal alkalinity
3. Hypoalbuminemia
4. Duodenal acidity
5. Hypokalemia

Answer: D; lower duodenal pH, intestinal dysbiosis, increased synthesis, hypocobalaminemia can lead to increased folate

**QUESTION:** Despite deliberate exposure to infected carcass meat, which of the following felids has shown to be resistant to infection with Chronic Wasting Disease-associated prions?

1. Lynx
2. Mountain lion
3. Bobcat
4. Ocelot
5. Jaguar

Answer: B

Source: Wolfe et al. 2022 JWD. MOUNTAIN LIONS (PUMA CONCOLOR) RESIST LONG-TERM DIETARY EXPOSURE TO CHRONIC WASTING DISEASE.

**QUESTION:** Which factor was significantly associated with increased pseudorabies (suid alpha-herpesvirus 1) detection in necropsied Florida panthers?

1. Evidence of self-mutilation prior to death
2. Co-infection with herpesvirus
3. Older age and male sex of panthers
4. Death by vehicle collision
5. Density of nearby feral swine

Answer: E

Source: Cunningham et al. JWD 2021. PSEUDORABIES (AUJESZKY’S DISEASE) IS AN UNDERDIAGNOSED CAUSE OF DEATH IN THE FLORIDA PANTHER (*PUMA CONCOLOR CORYI*).

**Mortality review for the North American snow leopard (Panthera uncia) zoo population from January 1999 to December 2019.** *Journal of Zoo and Wildlife Medicine* 52.1 (2021): 145-156.

Laura Martinelli

Question: Which specific co-morbidity is the most likely to occur in Snow Leopards (*Panthera uncia)* with chronic renal disease?

1. Enteritis
2. Cardiac fibrosis
3. Urolithiasis
4. Cystitis
5. Veno-occlusive Disease

Answer: E

**A retrospective study of neoplasia in nondomestic felids in human care, with a comparative literature review.** *Journal of Zoo and Wildlife Medicine* 52.2 (2021): 413-426.

Laura Martinelli

Question: Snow Leopards have a predilection for which type of neoplasia in managed care?

1. Pheochromocytoma
2. Mammary adenocarcinoma
3. Lymphoma
4. Squamous cell carcinoma
5. Thyroid adenoma

Answer: D