Olufemi Fasina
Anatomic Pathology Resident
University of Tennessee
Signalment and History

- 24 year old male American Bald Eagle, Knoxville Zoo
Signalment and History

- 24 year old male American Bald Eagle, Knoxville Zoo
- Anorexia and weight loss for 3-4 weeks
Signalment and History

- 24 year old male American Bald Eagle, Knoxville Zoo
- Anorexia and weight loss for 3-4 weeks
- Elevated bile acids
Signalment and History

- 24 year old male American Bald Eagle, Knoxville Zoo
- Anorexia and weight loss for 3-4 weeks
- Elevated bile acids
- Liver biopsy
Signalment and History

- 24 year old male American Bald Eagle, Knoxville Zoo
- Anorexia and weight loss for 3-4 weeks
- Elevated bile acids
- Liver biopsy
- Euthanasia
Ventriculus
Testis
Testis
Testis
Ventriculus
Ventriculus
Ventriculus
Ventriculus
Ventriculus
Ventriculus
Ventriculus
Ventriculus

Conidiophore

Hyphae
Ventriculus

Conidiophore

Hyphae

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Air sac
Microscopic diagnosis: Bilateral malignant seminoma with ventricular metastasis

Marked chronic multifocal granulomatous ventriculitis and air sacculitis with intrallesional fungal hyphae most consistent with Aspergillus spp
Budgerigar
Budgerigar

Cockatiel
Budgerigar

Cockatiel

Trumpeter Hornbills
Budgerigar

Cockatiel

Trumpeter Hornbills

Guinea Fowl
Budgerigar

Cockatiel

Trumpeter Hornbills

Guinea Fowl

Mallard Duck
Aspergillosis

- Common in captive raptors
- Predisposing factors include
  - recent capture
  - poor ventilation
  - lead poisoning
  - corticosteroids
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Transcoelomic dissemination of exfoliated neoplastic seminoma cells
Aspergillosis

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Transcoelomic dissemination of exfoliated neoplastic seminoma cells

Altered air sacs innate immunity
Aspergillosis

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Transcoelomic dissemination of exfoliated neoplastic seminoma cells

Altered air sacs innate immunity

Growth of *Aspergillus* spores
Acknowledgements

Dr. Deb Miller
Dr. Mee Ja Sula
Dr. Andrew Cushing
Dr. Patrick Sullivan
UT Veterinary Pathology Faculty and Staff

Questions
REFERENCES

• **Wernick et al** Bilateral Malignant Seminomas in Two Unrelated, Aged Trumpeter Hornbills (Bycanistes buccinator)

• **Saied et al** Bilateral seminoma with hepatic metastasis in a cockatiel (Nymphicus hollandicus)

• **Golbar et al** Malignant seminoma with multiple visceral metastases in a guinea fowl (Numida meleagris) kept in a zoo

• **Mutinelli et al** Unilateral seminoma with multiple visceral metastases in a duck (Anas platyrhynchos)