Case 19: N13-0826

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Signalment and History

• 3 year old, intact female, chicken
Signalment and History

- 3 year old, intact female, chicken
- Mass on left naris
Signalment and History

• 3 year old, intact female, chicken
• Mass on left naris
• Lethargic → euthanasia
Necropsy Findings
Microscopic Findings
Morphologic Diagnosis
Malignant melanoma with metastases to lung and bone marrow
Discussion
Discussion

• Melanomas in birds:
Discussion

• Melanomas in birds:
  – Usually malignant in birds
Discussion

- Melanomas in birds:
  - Usually malignant in birds
  - Arise from: skin and internal organs
Discussion

• Melanomas in birds:
  – Usually malignant in birds
  – Arise from: skin and internal organs
  – Older birds: facial skin near the beak
Discussion

Metastatic Melanomas in Young Broiler Chickens (Gallus gallus domesticus)

S. M. Williams¹, G. Zavala¹, S. Hafner², S. R. Collett¹, and S. Cheng¹

Abstract
Four young broiler chickens affected by multiple melanotic tumors are described. Grossly, there were multiple tumors composed of melanocytes within the skin, skeletal muscle, and multiple visceral organs. Tumors ranged from flattened macules to masses that extensively replaced viscera. Microscopically, melanocytes were often well pigmented, and while there was moderate nuclear anisokaryosis, mitotic rates were low. Immunohistochemical staining of some melanomas with antibodies to S100 proteins, Melan-A, vimentin, or neuron-specific enolase after bleaching of tumor cells with potassium permanganate revealed lack of immunostaining of tumor cells with antibodies to S100, strong positive staining of tumor cells for neuron-specific enolase, moderate staining with antibodies to vimentin, and faint staining for Melan-A. Only neuron-specific enolase staining was evident in unbleached tumor cells. Attempts to identify exogenous avian leukemia viruses in these tumors were unsuccessful.
Discussion

- Older bird melanomas and UV light:
Discussion

• Older bird melanomas and UV light:
  – Immunosuppression
Discussion

• Older bird melanomas and UV light:
  – Immunosuppression
  – Location
Discussion

• Older bird melanomas and UV light:
  – Immunosuppression
  – Location
  – Age
Discussion

• Older bird melanomas and UV light:
  – Immunosuppression
  – Location
  – Age

• Other species and UV light induced tumors

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Discussion

• Medullary bone:
Discussion

• Medullary bone:
  – Supply calcium in eggshell formation
Discussion

• Medullary bone:
  – Supply calcium in eggshell formation
  – In response to steroids
Discussion

• Medullary bone:
  – Supply calcium in eggshell formation
  – In response to steroids
  – Recalcified in this case
Conclusions

• Backyard chickens
Conclusions

• Backyard chickens
• Prognosis is poor
Questions?