Slide 12-0512
(SEVPAC Case #41)
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Signalment and History

- Adult, female goose
- Respiratory distress
  - Dyspnea
  - Open-mouth breathing
- Backyard flock
  - Multiple animals affected
  - Death with and without premonitory signs
Gross Findings
Gross Findings
Histopathology
Histopathology
Histopathology
Histopathology
Histopathology
Histopathology
Morphologic Diagnoses

- **Trachea:** Regionally extensive, necrotizing, hemorrhagic, and catarrhal tracheitis with intralesional nematodes and ova (Cyathostoma bronchialis)

- **Lungs:** Mild, multifocal to coalescing, lymphoplasmacytic bronchitis and occasional intra-alveolar nematode ova
Tracheal Worms

- Two species:
  - Syngamus trachea – land-dwelling birds
  - Cyathostoma bronchialis – waterfowl

- Distributed worldwide
  - Uncommon in United States and Canada
  - More common within United Kingdom

- No seasonality
Tracheal Worms

- Also known as Gapeworms due to clinical signs:
  - Extended neck, gasping for air, open-mouth breathing, dyspnea
  - Can also cause wasting and anemia
  - More severe in smaller birds (small tracheal diameter)
  - Younger birds more often affected

- Differential diagnoses:
  - Mite infestations
  - Wet pox
  - Aspergillosis
Tracheal Worms

1. Adult worms produce eggs by sexual reproduction within trachea
2. Female worm releases fertilized eggs, which are swallowed by bird and voided with feces
3. Infective larvae develop within egg and hatch
4. Eggs are eaten by earthworms, snails, slugs, or fly larvae
5. Infective larvae hatch and become encysted within bodies of invertebrates
6. Bird eats infected invertebrate and larvae penetrate intestinal wall and enter blood stream
7. Larvae are carried to lungs via blood stream where larvae undergo further development
8. Young worms migrate up the bronchi to the trachea
Questions?

THANKS!

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