POULTRY DISEASES

BACTERIAL

C.L. Davis Gross Pathology Course 2018
J.N. Hemnigion
Kansas State

ACKNOWLEDGEMENTS

- Cindy Bell, WVOL
- Rob Porter, Minnesota Veterinary Diagnostic Laboratory
- Francisco Uzal, California Animal Health and Food Safety Laboratory
- Noah’s archive
- AAAP Avian Disease Manual, 7th Edition
- Atlas of Avian Diseases, Cornell University/USDA

BACTERIAL DISEASES

Cornell University

Noah’s Arkive
MYCOPLASMOSIS

- Mycoplasma gallisepticum
  - Adult layers: drop in feed consumption and egg production
  - Broilers: More severe than adult birds
  - Turkeys: Swelling of intra-orbital sinuses, possible pneumonia and airsacculitis
  - Catarhal inflammation of the nasal passages, sinuses, trachea and bronchi and air sacs
  - Tread of lesions with secondary infection: A airsacculitis, fibrinous pericarditis, pericarditis
- Mycoplasma meleagridis
  - confined to turkeys, affects all age groups
  - Air sacculitis, synovitis, sinusitis
  - Generalized skeletal disorder: Turkey syndrome 65 -> chondrodysplasia, varus deformity, perosis
- Mycoplasma synoviae
  - Usual subclinical upper resp infection of chickens and turkeys
  - Synovitis, tenosynovitis, airsacculitis, sinusitis (mild)
SALMONELLOSIS

- Pyloric disease
- Egg transmitted disease of poultry, may affect chickens and turkey poults
- May be no lesions
- Involves intestine, liver, gallbladder, heart, kidneys, spleen, and pancreas
- S. pullorum
- Enteritis
- Chickens and turkeys
- S. pullorum
- Lesions similar to pyloric disease
- Neisseria
- Egg transmitted, primarily young turkey poults
- S. typhimurium
- Lesions of septicaemia
- Paratyphoid infection
- Acute and chronic disease of poultry
- Many Salmonella species
POULTRY DISEASES

VIRAL

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FUNGAL AND PARASITIC

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F. necatrix
- Intestinal
- Mild to moderate disease

F. caninum
- Intestinal
- Milder disease

F. praecox
- Intestinal
- Milder disease

Table: Eimeria sp. in Chickens

<table>
<thead>
<tr>
<th>Type</th>
<th>Species</th>
<th>Area</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highly Pathogenic (high mortality)</td>
<td>E. tenella</td>
<td>Large intestine</td>
<td>Muddy, bloody diarrhea</td>
</tr>
<tr>
<td></td>
<td>E. necatrix</td>
<td>Intestine</td>
<td>Mild to moderate disease</td>
</tr>
<tr>
<td>Moderate Pathogenic (poor mortality)</td>
<td>E. acervulina</td>
<td>Intestine</td>
<td>Intestinal disease</td>
</tr>
<tr>
<td></td>
<td>E. adenoeides</td>
<td>Intestine</td>
<td>Mucoid, blood-stained feces</td>
</tr>
<tr>
<td>Low Pathogenic</td>
<td>E. acervulina</td>
<td>Intestine</td>
<td>Mucoid, blood-stained feces</td>
</tr>
</tbody>
</table>

CAHFS San Bernardino
UC-Davis
POULTRY DISEASES
IDIOPATHIC AND NEOPLASIA

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NUTRITIONAL AND TOXIC

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Figures 1. Ripping muscle myopathy, musculus complexus, emu chick.