



ECVP/ESVP Summer School in Veterinary Pathology



Marie Curie Training Courses

Summer School 2006 – Emerging Infectious Diseases Case 5

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Signalement: Meat turkey, adult

History:

Flock of appr. 10,000 meat turkeys. Death of almost all animals within 24-48 hours after onset of clinical signs.

Clinical signs: hyperthermia, ruffled feathers, CNS signs (e.g. torticollis, reluctance to move, incoordination, pedalling), decubitus.

Gross Findings:

Apart from acute congestion of all major organs, multifocal to coalescing necrohaemorrhagic pancreatitis was observed.

Histology: Tissue from a meat turkey.

1. DESCRIPTION OF HISTOLOGIC FINDINGS

Pancreas. There are multifocal to coalescing areas where most or all parenchymal cells exhibit complete loss of cellular details, hypereosinophilia, karyorrhexis and karyolysis (coagulative necrosis). Remaining exocrine pancreatic cells often appear enlarged and exhibit cytoplasmic vacuoles (hydropic degeneration). Mild to moderate multifocal parenchymal leukocyte infiltrates are present; many of these cells are degenerate. Mild multifocal haemorrhage is observed and there is mild to moderate diffuse hyperaemia. Within the interstitium and in the periphery (subserosal), often surrounding blood vessels, there is moderate oedema and moderate infiltration by macrophages, with numerous macrophages and fibrin observed within lymph vessels.

2. MORPHOLOGIC DIAGNOSIS

Pancreas; severe acute multifocal to coalescing, necrotising pancreatitis.

3. NAME A LIKELY DISEASE

Avian Influenza.

4. POSSIBLE DIFFERENTIAL DIAGNOSES

(In chickens:

- Newcastle Disease
- *Mycoplasma gallisepticum*
- *Chlamydia psittaci*
- *Pasteurella multocida*
- Infectious bronchitis)