



ECVP/ESVP Summer School in Veterinary Pathology



Marie Curie Training Courses

Summer School 2006 – Emerging Infectious Diseases Case 16

CASE 16 Provided by: Becki Lawson, Institute of Zoology, London, UK

Signalement: Greenfinch (*Carduelis chloris*), adult, female.

History:

Garden bird. Found dead.

Gross Findings:

Moderate emaciation.

Histology: Tissue from a greenfinch.

1. DESCRIPTION OF HISTOLOGIC FINDINGS

Liver. Random multifocal areas comprised of hepatocytes which exhibit loss of cellular detail, hypereosinophilic amorphous cytoplasm and karyorrhexis (necrosis) and moderate numbers of heterophils, lymphocytes and macrophages are present throughout the parenchyma. Additionally, foci contain myriad basophilic intra- and extra-cellular short rod-shaped bacteria. Hepatocytes frequently exhibit moderate to severe cytoplasmic vacuolation and there are moderate numbers of disseminated Kupffer cells with yellowish-brown cytoplasmic pigment (bile) and/or necrosis (karyorrhexis). Some also appear to contain the above-described bacteria. Between hepatic cords, there are low numbers of individual leukocytes (heterophils, macrophages and lymphocytes). Blood vessels are filled with erythrocytes (moderate diffuse hyperaemia).

Heart. Multifocal interstitial infiltrates of macrophages and degenerate heterophils are present and there is focal associated degeneration and necrosis of myocytes.]

Lung. Marked diffuse hyperaemia of alveolar capillaries and larger vessels is seen. Mild multifocal infiltrates of macrophages are present, with numerous intracellular and occasional cell-free, short rod-shaped bacteria.]

2. MORPHOLOGIC DIAGNOSIS

Liver; moderate to severe, acute, multifocal, necrotising hepatitis with numerous intralesional short rod-shaped bacteria.

3. ETIOLOGY

Salmonella sp.