



ECVP/ESVP Summer School in Veterinary Pathology



Marie Curie Training Courses

Summer School 2006 – Emerging Infectious Diseases Case 2

CASE 2 Provided by: Dr. Sophette Gers, Western Cape Provincial Laboratory,
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Signalement: Ewe, adult

History:

From extensive (very remote) sheep farming area where this year a lot of vector-borne diseases (Bluetongue, African Horse Sickness, Wesselsbron) were observed due to very good summer rain. The owner observed increased neonatal lab mortalities, weak lambs, loss of pregnancies, death of some ewes. This ewe was found dead.

Gross Findings:

The animal was icteric.

Histology: Tissue from a ewe.

1. DESCRIPTION OF HISTOLOGIC FINDINGS

Liver. There are multifocal, variably sized and irregularly shaped random areas where hepatocytes display loss of cellular architecture, hypereosinophilic cytoplasm, karyorrhexis and karyolysis (necrosis). Associated with these areas are mild to moderate inflammatory infiltrates (neutrophils, lesser lymphocytes, plasma cells), macrophages containing cytoplasmic pigments (bile) and low to moderate numbers of extravascular erythrocytes (haemorrhage). Elsewhere, hepatocytes exhibit loss of sinusoidal architecture (autolysis). Additionally, hepatocytes show moderate anisocytosis, mild anisokaryosis, are occasional binucleated and exhibit scattered mitoses (regeneration). Occasional hepatocytes contain intracytoplasmic yellow-green pigment (bile). Scattered apoptotic hepatocytes are seen. Portal vessels exhibit mild hyperaemia and occasionally mild plasma cell- and lymphocyte-dominated mononuclear infiltration.

2. MORPHOLOGIC DIAGNOSIS

Liver. Moderate to severe, acute, multifocal, necrotising hepatitis.

3. POTENTIAL DISEASE and ETIOLOGY, DIFFERENTIAL DIAGNOSES

Wesselsbron disease (flavivirus).

Rift valley fever (bunyavirus)