



ECVP/ESVP Summer School in Veterinary Pathology



Marie Curie Training Courses

Summer School 2006 – Emerging Infectious Diseases Case 11

CASE 11 Provided by: Dr. Dr. Udo Hetzel, Gail Leeming, Department of Veterinary Pathology, University of Liverpool, UK.

Signalement: Rottweiler, 5 months, female.

History:

The animal was small for its age. It suffered from chronic diarrhoea. Within the last 48 hours, coughing and hepatomegaly were observed.

Gross Findings:

Mild ascites and multifocal whitish, 1-5 mm diameter lesions in lungs, myocardium and liver.

Histology: Tissue from a dog.

1. DESCRIPTION OF HISTOLOGIC FINDINGS

Heart. Within the myocardium, multifocally there is degeneration of myocytes with loss of striation and hypereosinophilic sarcoplasm as well as necrosis of myocytes with loss of cellular detail, pyknosis and karyorrhexis. Necrotic myocytes often contain basophilic, granular cytoplasmic material obscuring cellular features (dystrophic mineralisation). Within these foci, there is a moderate infiltrate of neutrophils, with lesser macrophages and lymphocytes. Surrounding the foci, mild oedema is observed. Within scattered intact appearing myocytes and within myocytes in the described foci, cysts (up to 100 x 30µm) containing numerous, basophilic, 3-5µm round structures (tachyzoites) are present.

2. MORPHOLOGIC DIAGNOSIS

Heart; severe, multifocal, necrotising myocarditis with (intralesional) protozoan cysts.

3. ETIOLOGY

Toxoplasma gondii