



# ECVP/ESVP Summer School in Veterinary Pathology



## Marie Curie Training Courses

### Summer School 2006 – Mock Exam Case 7

#### 7. Tissue from a TURTLE

##### DESCRIPTION OF THE HISTOLOGICAL FINDINGS

###### Colon:

Diffusely there is transmural necrosis (1) with effacement of mucosal architecture (0.5), characterized by increased eosinophilia (0.5), loss of cellular detail, karyopyknosis (0.5) and karyorrhexis (0.5). The necrotic mucosa is replaced by a large diphtheric membrane containing abundant fibrin (0.5), cellular debris (0.5), abundant macrophages (0.5) and degenerated and viable heterophils (0.5), entrapped mucus, colonies of small rod bacteria (1) and scattered round to ellipsoid protozoa. Protozoa are 15-20  $\mu\text{m}$  (0.5) in diameter, pale eosinophilic (0.5) and have a vacuolated cytoplasm (0.5) and an eccentric (0.5), 3-5  $\mu\text{m}$  round nucleus with a karyosome (0.5) (amebic trophozoites, 1). Furthermore amebic cysts are present on the surface, are 10-15  $\mu\text{m}$  in diameter and characterized by central, round eosinophilic, globular cytoplasm, surrounded by a halo and a refractile thin wall. The submucosa, muscularis and serosa are diffusely and severely thickened (0.5) due to edema (0.5), fibrin deposition (0.5) and infiltration with numerous macrophages (0.5) and heterophils (0.5). Scattered multinucleated giant cells are present (0.5). Lymph vessels are markedly dilated (0.5), tortuous and contain fibrin and inflammatory cells. The wall of some vessels is hypereosinophilic (fibrinoid vessel wall necrosis, 0.5) and blurred by inflammatory cells (vasculitis). The serosa (1) is covered by a thick layer of fibrin, admixed with macrophages and degenerate and viable heterophils, necrotic debris and bacterial colonies.

##### MORPHOLOGIC DIAGNOSIS/DIAGNOSES

Colitis (1), fibrinonecrotizing (1), transmural, diffuse, subacute, severe, with intralumenal bacteria (1) and protozoal structures compatible with ameba (1).

##### ETIOLOGY

*Entamoeba invadens*

##### MARKS

Colon. <i>Also accept: digestive tract</i> .....	1
Transmural necrosis .....	1
Description of necrosis .....	2
Diphtheric membrane description .....	2
Rod bacteria .....	1
Description of ameba .....	2
Amebic trophozoites or cysts .....	1
Thickening of the submucosa, muscularis, serosa .....	0.5
Inflammatory infiltrate (Macrophages, heterophils, MNG cells) .....	1.5
Description of submucosa / muscularis / serosa (fibrin, edema, vasculitis, and/or dilation of lymph vessels... ) .....	1
Morphologic diagnosis .....	4
Etiology .....	1
Design .....	2