

ECVP/ESVP Summer School in Veterinary Pathology

Summer School 2016 – Mock Exam

1. Tissue from a Hen Liver

Scattered throughout the section, there are 100- μ m to 1-mm **aggregates of epithelioid macrophages** and **lymphocytes**, admixed with numerous foreign body-type **multinucleate giant cells** with up to 20 nuclei, and heterophils (**granulomas**). The granulomas are centered on areas of **lytic necrosis** (characterized by loss of architecture, and replacement of hepatocytes with numerous **degenerate heterophils**, fewer macrophages, extravasated red blood cells (**hemorrhage**), fibrin, and abundant eosinophilic cellular and karyorrhectic debris). Within areas of inflammation and even normal parenchyma, there are innumerable **15-20- μ m diameter**, round, lightly **eosinophilic** to amphophilic **protozoal trophozoites**, with centrally located 3-5- μ m diameter nuclei. Trophozoites are primarily **extracellular**, but are occasionally seen **within the cytoplasm of macrophages** and multinucleate giant cells. Surrounding the granulomas, there are: marked increase in collagen (**fibrosis**), marked **lymphoid hyperplasia** (lymphocytes, lymphoblasts), moderate fibroblast hyperplasia (**fibroplasia**), extramedullary hematopoiesis (heterophils myelocytes and myeloblasts). Portal tracts show moderate papillary bile duct hyperplasia (**ductular reaction**). The hepatic capsule is multifocally covered by a thin layer of fibrin and extravasated red blood cells (**hemorrhages**) with few macrophages.

Morphologic diagnosis / diagnoses

Liver: multifocal (0.5) to coalescing, severe, necrotizing (0.5) and granulomatous (1) hepatitis (0.5), with intralesional protozoal trophozoites (0.5).

Etiology / Etiologies

Histomonas meleagridis

Marks

Liver	1
Granulomas	1
Activated / epithelioid macrophages	1
Lymphocytes / lymphoblasts	1
Multinucleate giant cells	1
(viable and degenerate) heterophils	1
Central necrosis	1
Lytic	1
Description: karyorrhexis	1
Protozoa	1
Size in micrometers	0.5
Acidophilic	0.5
Bile duct hyperplasia	1
Fibrosis	1
Capsule: hemorrhages with description (e.g., fibrin)	1
Morphologic diagnosis	3
Etiology	1
Design	2