

ECVP/ESVP Summer School in Veterinary Pathology

Summer School 2010 – Mock Exam Case 5

Tissue from a Bovine Omasum

There is a focally-extensive to multifocal inflammatory lesion extending across the full thickness of this omasal leaflet and characterized by marked infiltrates of pyknotic and karyorrhectic neutrophils (**necrosis**), and smaller numbers of lymphocytes, plasma cells and macrophages. The inflammatory cells are admixed with eosinophilic extracellular fibrillar material (**fibrin**), extravasated erythrocytes (**hemorrhages**) and cytonuclear debris (**necrosis**). Submucosal capillaries are dilated and packed with erythrocytes (marked capillary **congestion**) and venular lumina in the deeper areas are filled with fibrinous thrombi containing large numbers of neutrophils (**thrombosing phlebitis**). Some subepithelial vessels are filled with erythrocytes and neutrophils (congestion and leukocytostasis). In necrotic tissue and within some thrombi, there are numerous basophilic, round **fungi** (in cross-section) that measure 3-7 μ m in diameter. In longitudinal section these hyphae have an irregular outline, are branching and have basophilic walls. The epithelium is multifocally **ulcerated** and replaced by a fibrinous exudate. Remaining mucosal epithelial cells contain vacuoles (ballooning degeneration), with intracellular edema, and infiltrating inflammatory cells.

Morphologic diagnosis / diagnoses

Diffuse, necrotizing and neutrophilic, marked, subacute omasitis with thrombosing phlebitis, associated with intralesional fungal hyphae

Etiologic diagnosis / diagnoses

Mycotic omasitis / omasal mucormycosis

Marks

Omasum.....	1
Full thickness	1
Degeneration / necrosis of neutrophils	2
Fibrin	1
Hemorrhages	1
Necrosis and description.....	1
Capillary congestion.....	1
Thrombosing phlebitis	1
Leukocytostasis.....	1
Fungi and description (size, shape, branching).....	3
Ballooning degeneration.....	1
Mucosal ulceration	1



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Morphologic diagnosis.....	3
Etiologic diagnosis.....	1
Style	1