



ECVP/ESVP Summer School in Veterinary Pathology



Marie Curie Training Courses

Summer School 2007 – Avian Q1

Slide Q1: Tissue from a Hen

Tissue: Lung

Description of the histologic findings: Infiltrating and effacing nearly 60% of the pulmonary parenchyma, is observed a densely cellular, poorly demarcated, unencapsulated tumor, that invades the interstitial spaces (septa of respiratory atri, parabronchial walls, connective tissue of parabronchial lobules and pleura). The tumor consists of sheets of malignant round cells supported by a sparse pre-existing collagenous stroma. Neoplastic cells have a centrally-located, hypochromatic irregularly round to oval nucleus, medium-sized nucleoli, and a small to moderate amount of slightly basophilic cytoplasm with indistinct cell margins. Anisokaryosis and anisocytosis are marked. The mitotic index is moderate (2 mitoses per High Power Field).

Furthermore, a voluminous (up to 5 mm in diameter) focus of brightly eosinophilic granular material, containing fibrin, erythrocytes and cytoplasmic and karyorrhectic debris (necrosis), is surrounded by a rim of voluminous macrophages and multinucleated giant cells (granuloma). In the centrally-located necrotic material are present sparse transversal and longitudinal sections of 5 μ m in diameter branched and septate fungal hyphae. Several small granulomas are observed in the vicinity of the voluminous one. Between them, the lung parenchyma is extensively fibroplastic. The parabronchial lumina are filled with seroproteinaceous fluid (edema) containing sparse cell debris and erythrocytes.

Morphologic diagnoses:

- Lung, diffuse malignant lymphoma
- Lung, multifocal, chronic granulomatous pneumonia with central necrosis and intralesional branched and septate fungal hyphae, morphology consistent with *Aspergillus* sp.

Etiologies:

Marek's Disease Virus ; *Aspergillus fumigatus*

Key words and marks:

Tissue	1
Design	2
Description:	
Diffuse neoplastic infiltration	1
High cell density	1
Sheets of neoplastic cells	1
Neoplastic cell description (size, shape, cytoplasm, nucleus)	2
Cellular atypia	1
Mitoses	1
Foci of necrosis	1
Granulomas	1
Multinucleated giant cells	1
Branched and septate fungal hyphae	2
Edema fluid in parabronchi	1
Morphologic diagnoses	2
Etiologies	2