



ECVP/ESVP Summer School in Veterinary Pathology



Marie Curie Training Courses

Summer School 2004 – Mock Exam Case 7

Slide No. 7: Tissue from a DOG

1. DESCRIPTION OF HISTOLOGICAL FINDINGS

Esophagus. There is a semi-circumferential, more than 5 cm in diameter large, moderately cellular multinodular neoplasm predominantly located within the oesophageal tunica muscularis and infiltrating the tunica mucosa. The neoplasm extends to the cut borders and is unencapsulated. The neoplasm consists of thick bundles and streams of spindle cells embedded in an abundant collagenous or loose stroma, which rarely appears as an amorphous pale orange matrix containing neoplastic cells (osteoid matrix; NOT in all slides!). Neoplastic cells are spindle- to stellate-shaped, large (30-40 μm in diameter), with indistinct cell borders, abundant, homogeneous, eosinophilic cytoplasm and a large (15-30 μm in diameter), central, oval, hypochromatic nucleus with multiple small eosinophilic nucleoli. Anisocytosis and anisokaryosis are severe, multinucleated and/or giant neoplastic cells are frequent, associated with frequent and marked cellular atypia (karyomegaly, giant nuclei, vesicular nuclei). The average mitotic index is one per HPF, with abnormal mitoses. Diffusely, the neoplasm contains abundant lymphocytes and plasma cells admixed with macrophages, within well-vascularised granulation tissue with scattered siderophages. There is focal extensive necrosis. Within the neoplasm there are dozens of appr. 20 x 40 μm , oval-shaped, thick-shelled, parasitic eggs which occasionally contain a basophilic embryo (NOT in all slides!). There are a several metazoan parasites, appr. 3 mm in diameter, which exhibit a thick cuticle with two prominent lateral chords and a coelomyarian musculature, a digestive tract (simple cuboidal epithelium with prominent brush border), and a uterus filled with eggs (NOT in all slides!). The uterus is surrounded by an eosinophilic amorphous material within the pseudocoelom (adult nematodes). In oesophageal glands, a moderate proportion of mucus-secreting cells are hypertrophic (retention of secretion product).

2. MORPHOLOGICAL DIAGNOSES:

Poorly differentiated oesophageal sarcoma/fibrosarcoma/spindle cell sarcoma and diffuse chronic oesophagitis with intralesional adult nematodes and eggs.

3. ETIOLOGY: *Spirocerca lupi*.

MARKS:

- descriptive features:

Esophagus	1
Growth: demarcation	0.5
Growth: bundles and streams	1
Stroma/matrix	0.5
Description of neoplastic cells (shape, size, cytoplasm, nucleus...)	3
Cellular atypia	1
Mitotic index	1
Inflammation (lymphocytes, plasma cells, macrophages)	2
Granulation tissues	1
Haemosiderosis	0.5
Necrosis	0.5

Nematode eggs with description (size, shape, shell)	1
Nematode adults with description (size, cuticle, muscle, uterus)	1
- <i>diagnosis</i> (n=3):	
Sarcoma/fibrosarcoma/spindle cell sarcoma	1
chronic oesophagitis	1
intralesional nematodes and eggs	1
- etiology	1
Style	2