



# ECVP/ESVP Summer School in Veterinary Pathology



## Marie Curie Training Courses

Summer School 2006 – Toxicological Pathology 01-23121

### Slide 8.L-2 (01-23121) Cat

#### Description (14)

*Alveoli - (5)*

- *amorphous, eosinophilic material (edema)*
- *scattered macrophages, RBCs and neutrophils, also aggregated of neut*
- *?occasional syncytial/multinucleated cells*

*Alveolar walls – edema and inflam cells (2), in peripheral areas fibrillar material and elongated cells (fibroblasts) (2)*

- *Occasionally dense eosinophilic lining material (hyaline membranes, 2)*
- *Prominent epithelial cells (type II hyperplasia, 2)*

*Bronchi/bronchioles – submucosa – mononuclear cells (1)*

- *intraluminal inflammatory cells*

#### Morphologic Diagnosis(es) – 4

*Severe diffuse (serofibrinous) subacute interstitial pneumonia with hyaline membranes and type II cell hyperplasia*

Note: inflammatory cells in airways interpretation – if active inflammation, bronchointerstitial pneumonia, if cells being removed via mucociliary escalator, then not direct inflammation of airways.

#### Possible causes and mechanisms -2

- *paraquat – cyclic oxidation to reactive metabolite - ingestion*
- *plant toxin – PA – metabolic activation to reactive metabolite - ingested*
- *inhaled toxin – direct irritation*
- *chemotherapeutic agent – parenteral administration*
- *oxygen toxicity - inhaled*
- *also viral, ARDS (pancreatic), blood borne bacterial (unlikely)*

**Additional information:** 7yr FS cat, pale mucous membranes