



ECVP/ESVP Summer School in Veterinary Pathology



Marie Curie Training Courses

Summer School 2004 – Case 2

Slide No. 2: Tissue from a RAT

1. DESCRIPTION OF HISTOLOGICAL FINDINGS

Kidney. Affecting the entire kidney with only little remaining normal parenchyma in the cortex. Tubules display both degenerative and regenerative changes. Degenerative tubular changes are particularly prominent in the medulla and vary in severity; they are represented by dilated tubules containing eosinophilic hyaline casts (protein) and cystic tubules lined by attenuated epithelium and containing abundant eosinophilic hyaline casts (protein). Regenerative tubular changes include small foci of basophilic tubules with enlarged basophilic nuclei and piling up of nuclei (simple hyperplasia). Glomerular changes vary in severity and include condensation and collapse of capillary tufts, glomerular atrophy and mesangial thickening due to amorphous eosinophilic material (glomerular sclerosis). Interstitial changes consist of multifocal accumulations of lymphocytes and varying deposition of collagen fibres in variable amounts (interstitial fibrosis). There is mineralisation (dense purple-staining, granular deposits) within tubular lumina and within multiple glomeruli.

2. MORPHOLOGICAL DIAGNOSIS: Chronic diffuse severe (glomerulo)nephropathy

3. NAME THE CONDITION: Chronic progressive (glomerulo)nephropathy

4. NAME ASSOCIATED SYSTEMIC CHANGES:

- compensatory hyperplasia of parathyroid glands
- generalized mineralisation

MARKS:

- *descriptive features:*

entire kidney affected	1
regenerative tubular changes	0.5
tubular hyperplasia	0.5
basophilic tubules	0.5
enlarged basophilic nucleus	0.5
degenerative tubular changes	1
dilated tubules	1
cystic tubules	1
attenuated epithelium	1
hyaline protein casts	1
glomerular condensation...	1
glomerular atrophy	1
glomerular sclerosis	1
interstitial lymphocytes	1
interstitial fibrosis	1
intratubular mineralisation	0.5
segmental glomerular mineralisation	0.5

- <i>morphological diagnosis</i>	2
- <i>condition</i>	1
- <i>associated systemic changes</i>	
hyperplasia of parathyroid glands	0.5
generalized mineralisation (metastatic calcification)	0.5
style:	2