

## Marie Curie Training Courses

### Summer School 2005 – Urinary Tract Case 1

Case 1 (504-1616.6)	Points
<p><b>Species:</b> Dog <b>Organ:</b> Kidney</p> <p><b>Description:</b> Multifocally, but mostly the proximal tubules are dilated and the tubular epithelial cells show <u>hypereosinophilic cytoplasm</u> and sometimes <u>karyorrhectic or pyknotic nuclei</u> (tubulonephrosis). The cytoplasm of many tubular cells show brownish granular pigment (<u> hemosiderin</u>). Most of the glomeruli (<u>generalized</u>) show lesions that involve part or the whole glomerular structures (<u>segmental or focal lesion to diffuse or global lesion</u>). These lesions consist out of slight to moderate <u>thickening of the mesangium and of some basement membranes</u> and a moderate increase of the <u>cellularity (membranoproliferative lesion)</u>. In some glomerular capillaries few <u>neutrophils, few thrombi as well as a slight hyperemia</u> can be seen. In the glomerular space moderate to large amounts of eosinophil homogenous to fibrillar material (<u>fibrin</u>) admixed with few lymphocytes, macrophages and <u>only single neutrophils</u> but moderate amount of erythrocytes can be seen. Single glomeruli are condensed and eosinophilic (<u>sclerotic</u>). The <u>Bowmann's capsule</u> of most glomeruli is mild to moderately <u>thickened</u>. The lumina of some tubules are filled with cellular debris, neutrophils and sometimes with eosinophilic homogenous material (<u>slight proteinuria</u>), others with erythrocytes . The interstitium is <u>highly edematous</u> and diffusely infiltrated with erythrocytes (<u>hyperemia to acute bleedings</u>) as well as with few lymphocytes, macrophages and only single neutrophils. One bigger vein in the interstitium is filled with organized fibrin and leukocytes (thrombus).</p> <p><b>Diagnosis:</b> Severe, beginning acute tubulonephrosis (-necrosis) Moderate, generalized, segmental to diffuse membranoproliferative to severe, <u>exudative glomerulonephritis</u> with slight proteinuria, moderate interstitial edema, interstitial acute bleeding</p> <p><b>Etiology:</b> Leptospira sp.</p> <p><b>Associated lesions:</b> Icterus, acute lung bleeding</p>	