

## Marie Curie Training Courses

### Summer School 2005 – Urinary Tract Case 6

Case 6 (S03-2249.2)	Points
<p>Species: Dog Organ: Kidney</p> <p><b>Description:</b> The surface of the kidney is <u>indented and irregular</u>. Most of the cortex and medulla have been replaced by <u>lamellarily aligned fibrous tissue</u>, mostly located in the <u>interstitium</u>, sometimes only leaving islands of tubuli and <u>glomeruli</u>. The fibrous tissue and interstitium is multifocally infiltrated by large amounts of <u>plasmacells</u>, some <u>macrophages</u>, which now and then show <u>intra-cytoplasmic, brownish granular pigment (hemosiderin)</u> and some <u>lymphocytes</u>.</p> <p>The <u>glomeruli</u>, mostly in the fibrotic parts, show thickened basement membranes and increased mesangial cellularity (<u>membranoproliferative lesion</u>). Some glomerular loops are adhered to the thickened Bowmann's capsule (<u>synchiae</u>). The size of the glomeruli is variable and some glomeruli are shrunken and hypereosinophilic (<u>sclerotic</u>). The cells of the Bowmann's capsule are large (<u>activated</u>) and the capsule often <u>thickened</u>.</p> <p>Most <u>tubuli are dilated</u>, the collecting tubules being mostly affected and also shrunken tubuli with wrinkled basement membrane can be observed. The <u>basement membrane of some tubuli is moderately to severely thickened</u> and in some tubuli the tubular epithelial cells are beginning to slough.</p> <p>In the lumina of a moderate amount of tubuli a eosinophilic, homogenous to sometimes coarse fluid is visible (<u>moderate proteinuria</u>). Only in some lumina bluish concretions can be seen (<u>mineralization</u>).</p> <p>In the <u>pelvis</u> under the urothelium moderate to large amounts of <u>plasmacells</u>, some <u>lymphocytes</u> and <u>few macrophages</u> can be diffusely seen.</p> <p><b>Diagnosis:</b> Severe, generalized, global membranoproliferative glomerulonephritis with severe, diffuse interstitial fibrosis and moderate proteinuria Moderate to severe, multifocal to diffuse plasmacellular interstitial nephritis and moderate, diffuse lymphoplasmacellular and histiocytic (chronic) pyelitis</p> <p><b>Etiology:</b> Genetic, Bull Terrier nephropathy</p>	