# ECVP/ESVP Summer School in Veterinary Pathology

## Marie Curie Training Courses

**Summer School 2005 – Urinary Tract Case 11**

| **Case 11** (S04-1482.5) | **Points** |
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| **Species:** Dog<br>**Organ:** Kidney<br><br>**Description:**<br>Most glomeruli (generalized) show segmental to diffuse dilation of vessels that are filled with homogeneous to fibrillary eosinophilic material (fibrin) admixed with a moderate amount of neutrophils (beginning thrombosis). Some vessels are dilated and filled mostly with erythrocytes and fibrin along the vesel wall. Some small vessels are occluded by fibrin thrombi (disseminated intravascular coagulation).<br>The proximal tubules mostly show tubular epithelial cells that are sloughing and are rounded. They have hypereosinophilic, sometimes granular cytoplasm and only sometimes pyknotic or condensed nuclei (beginning tubulonephrosis). In the cytoplasm of some tubulus epithelial cells granular brownish pigment can be seen (hemosiderin). Some tubular epithelial cells are activated and sometimes show more than one nucleus (regeneration).<br><br>**Diagnosis:**<br>Severe, generalized, segemental acute exsudative glomerulonephritis with beginning disseminated intravascular coagulation and multifocal, acute tubulonephrosis<br><br>**Etiology**: toxic, endotoxemia<br><br>Snake bite (Vipera aspis, Vipera berus)<br><br>**Enzymes involved:**<br>Protease, hyaluronidase, phospholipase, kininogenase<br>**Toxins involved:**<br>Neurotoxin, hemorrhagin, hemolysin, thrombase | |