



# ECVP/ESVP Summer School in Veterinary Pathology



Summer School 2009 – Urinary Tract

Case 12 (V1501a)	Points
<p><b>Species:</b> Dog <b>Organ:</b> Urinary bladder</p> <p><b>Description:</b></p> <p>The urothelium is thickened by a <u>highly cellular, papillary and tubular epithelial proliferation that is infiltrative growing</u>. The tumor is <u>unencapsulated</u> and forms in the urinary wall <u>small intravascular lying packets and nests (intravascular spreading)</u>. The tumor cells are surrounded and supported by a moderate amount of <u>fibrovascular stroma</u>. <u>Round, cuboidal to seldom columnar epithelial cells</u> are present, measuring 12 to 20 micrometers, showing occasionally <u>distinct cell borders</u> and a moderate to large amount of eosinophilic homogenous or vacuolated <u>cytoplasm (anisocytosis)</u>, as well as a centrally located variable sized <u>nucleus (anisokaryosis)</u> with finely stippled chromatin. Few cells are double nucleated. One to multiple different sized <u>nucleoli</u> are present (<u>anisonucleolosis</u>). A moderate number of <u>mitotic figures</u> are present. Tumor cells show sometimes hypereosinophilic cytoplasm and pyknotic nuclei (<u>apoptosis and/or degeneration</u>). Multifocally in the whole urinary bladder small aggregates consisting out of <u>plasma cells and lymphocytes</u> and multifocally macrophages with intracytoplasmic brownish granular pigment can be found (<u>hemosiderin</u>).</p> <p><b>Diagnosis:</b></p> <p>Transitional cell carcinoma</p>	