



# ECVP/ESVP Summer School in Veterinary Pathology



## Marie Curie Training Courses

Summer School 2006 – Animal Models 2461

**2461**

**Cat, DSH, female, spayed, 10-year-old**

### Skin, mammary gland and lymph node:

Skin and mammary gland: within the subcutis and the dermis there is an irregular, exophytic, well-demarcated, unencapsulated, non-infiltrative nodule (1.3 x 0.5 cm), moderately displacing the deep mammary parenchyma and the peripheral adnexa. The nodule is partially surrounded by and ectasic cavity (intraductal growth) outlined by a cuboidal stretched mono/bilayered epithelium (ectasic interlobular duct) that shows progressive pluristratification and hyperkeratosis (possibly, lactiferous duct) when moving toward the superficial dermis. The mass is composed by multiple irregular papillary and tubular often dilated structures admixed with moderate fine to coarse fibrous septae (collagenous stroma) and multifocal small area of atypical cartilage and/or bone differentiation (cartilagineous and osseous metaplasia). Papillae and tubules are composed by a population of cuboidal to polygonal elements mainly organised in monolayer or occasionally in two markedly distinct layers (luminal and basal layer); they have indistinct cell borders, slight to moderate pale cytoplasm, frequently with a hypereosinophilic apical border, and round to oval pale nuclei with finely stippled chromatin and occasionally a small central nucleolus. Anysocytosis and anysokariosis are mild and mitoses are less than 1 per hpf. Within the interstitium there is a second cellular component (consistent with myoepithelium) of slightly elongated cells, organized in short irregular bundles mixed with scant fibrillar matrix, with indistinct pale eosinophilic cytoplasm and similarly clear nuclei. Atypia is mild. Small areas of degeneration and coagulative necrosis are mainly associated with extracellular matrix and metaplastic tissue (ischemic necrosis).

At the periphery of the deep margin of the nodule there are small perivascular infiltrates of lymphocytes and plasma cells and moderate diffuse hyperaemia.

The surrounding dermis is diffusely and moderately edematous; there is mild follicular keratosis and superficial diffuse lamellar orthokeratotic hyperkeratosis.

Lymph node: diffuse lymphoid hyperplasia is evident with loss of follicular architecture and diffuse moderate hyperemia.

### **Morphological diagnosis:**

Skin, mammary gland: benign mixed tumour.

Lymph node: diffuse moderate reactive hyperplastic lymphadenopathy