

ECVP/ESVP Summer School in Veterinary Pathology

Summer School 2010 – Mammary Tumours 29817/B

Cat

Expanding the mammary parenchyma there is a severely ectatic duct that is lined by neoplastic epithelial cells that form numerous irregular papillary structures and multiple irregular, from 2 mm to 5 mm, not encapsulated nodules protruding in the lumen of the duct. The nodules are composed of a population of epithelial neoplastic cells that form mainly irregular papillae and occasional irregular tubules, often containing moderate amount of amorphous eosinophilic material, and rarely nests multifocally separated by minimal fine fibrovascular septa.

Cells are irregularly cuboidal, cylindrical or polygonal, from 25 to 35 micron in size, with not well defined cell borders, high nuclear-cytoplasmic ratio, moderate eosinophilic cytoplasm and an irregularly round to ovular, 20 to 25 micron in size nucleus with finely stippled chromatin and a frequently evident, centrally located nucleolus. The anisocytosis and anisokaryosis are moderate and mitotic figures are up to 3 per HPF, occasionally atypical. Multifocal areas of necrosis are evident. At the periphery of the nodule, other ectatic ducts present neoplastic papillary proliferation of the epithelium. Multifocal aggregates of neoplastic cells infiltrate the subcutis and the mammary parenchyma. Numerous ectatic lymphatic vessels are evident at the periphery of the nodule and multifocally contain aggregates of neoplastic cells within the lumen (vascular invasion). Multifocal lymphocytic aggregates are evident within the mammary gland. The remaining mammary parenchyma is characterized by moderate ductal ectasia and lobular hyperplasia (adenosis).

MD:

Mammary gland, cystopapillary carcinoma with vascular invasion, ductal ectasia and lobular hyperplasia (adenosis), *Felis catus*.