



ECVP/ESVP Summer School in Veterinary Pathology

Summer School 2016 – Female Reproductive

Section 3. 9-year-old bitch with a mammary mass:

An acanthotic epidermis overlies a fibrotic dermis with a disseminated, loosely cellular infiltrate of individual and clusters of neoplastic cells. Neoplastic cell nuclei have variably sizes and shapes with one to three nucleolus and bizarre mitoses. The cytoplasm is ample and homogeneously grey or pale blue with a variety of sizes and amorphous shapes. Neoplastic cells are in all identifiable lymphatics. Areas of lytic necrosis has many degenerate neutrophils, and arterioles have a pleocellular cuffing. Multifocally are nests of epithelial cells with ample cytoplasm having variably sized, clear vacuoles (lipid) forming disorganized nodules. Lakes of macrophages with clear vacuoles (lipid), and free, clear droplets having a rim of grey debris (emulsified fat, fat necrosis) surround the neoplasm. A single focus having a few dilated profiles of tubules with a simple, organized lining is surrounded by dense fibrous connective tissue.

Diagnosis: Inflammatory Lipid-rich Mammary Carcinoma; focal fibrocystic disease; tumor necrosis and steatitis