



ECVP/ESVP Summer School in Veterinary Pathology



Marie Curie Training Courses

Summer School 2006 – Eye 06RD0730

Research No.: 06RD0730

Owner: Chandley

Animal: Callie

The tissue submitted is the formalin-fixed right globe from a 7-year-old spayed female Maine Coon cat. Grossly, there was a solid tumor mass occurring circumferentially around a collapsed lens remnant. Histologically, the neoplastic tissue is composed of pleomorphic variably shaped spindle cells surrounded by small amounts of collagen stroma. Approximately 40% of the neoplastic tissue is necrotic with a tendency for neoplastic cells to survive around blood vessels. The neoplastic tissue effaces most of the uveal tissue with the exception of the choroid. At the level of the choroid, neoplastic cells line the inner aspect of the choroid and extend into the choroidal stroma multifocally. Neoplastic cells also extend aggressively into the substance of the optic nerve and into several peripheral nerve tissues. Neoplastic tissue extends full-thickness through the sclera at the limbus. Remnant elements of lens capsule are collapsed and empty; however, there is minimal collagen adjacent to the lens. Retinal tissue is not recognizable; however, wisps of necrotic tissue presumed to be retina are seen in the central portion of the globe. Adjacent to the optic nerve, there is retinal tissue which is heavily infiltrated with neoplastic tissue. An alcian-blue PAS stain showed numerous PAS-positive basement membrane structures around neoplastic cells presumed to be lens capsule-like basement membrane production suggesting lens epithelial origin.

Diagnosis:

1. Feline posttraumatic sarcoma with invasion of peripheral nerves and optic nerve

Comments:

Orbital recurrence and intracranial extension should be a concern, moreso than distant metastasis. We are very interested in follow-up on this case.