

ECVP/ESVP Summer School in Veterinary Pathology

Summer School 2010 – Eye Case 5

Tissue from a dog

- The section of globe with attached conjunctival and orbital connective tissue has alterations mainly involving the posterior segment. [1]
- The vitreous body is collapsed [2] and contains a coagulum of fibrin, serous fluid, numerous neutrophils and foamy macrophages. [3]
- The sensory retina is detached, [4] distorted and the inner and outer segments are missing (degeneration secondary to retinal detachment). [5] The subretinal space is expanded and filled with an abundance of serous fluid and numerous neutrophils. [6] Spherical, budding (broad-base), thick-walled yeast (approximately 5 to 20 microns in diameter) consistent with *Blastomyces dermatitidis* are present in the subretinal exudate. [7-8]
- The choroid, ciliary body and iris all contain lymphocytes, plasma cells, Mott cells and a few macrophages and neutrophils (iritis, cyclitis and choroiditis: panuveitis). [9] The ciliary stroma is edematous.
- The anterior chamber is filled with proteinaceous fluid (plasmoid aqueous/aqueous flare) [10] with a few neutrophils are adhered to the corneal endothelium. [11]
- There is adherence of the iridal pupillary margin to the anterior lens capsule by fibrous connective tissue (posterior synechia). [12] The peripheral aspect of the iris is adhered to the peripheral cornea (peripheral anterior synechia). [13] The iris has an anterior bow (early iris bombé). [14]
- This uveal fibrous connective tissue is loose and has areas of hemorrhage. A coagulum of fibrin and hemorrhage extends from the ciliary body. [15]
- The subcapsular lens fibers along the posterior capsule are focally liquefied and mildly infiltrated by degenerate inflammatory cells. [16]
- Collagen fibers of the cornea are slightly separated and the cornea was pale staining (edema) in areas of neovascularization. [17]
- The periocular connective tissue is congested and slightly expanded (edema).

Morphologic Diagnosis(es): Pyogranulomatous endophthalmitis with yeasts, retinal detachment, vitreous liquefaction, iris bombé, and corneal neovascularization [18-19]

Etiology: *Blastomyces dermatitidis* [20]