

# ECVP/ESVP Summer School in Veterinary Pathology

## Summer School 2010 – Eye Case 6

### Tissue from a dog

- The section of globe has diffuse retinal detachment [1] and changes in the anterior segment including iris bombé [2] and blood in the posterior chamber [3].
- Corneal changes include a break in Descemet's membrane [4] with a proliferation of fibrous tissue at the site of the break. There is extension of fibrous tissue along the Descemet's membrane as the result of fibrous metaplasia of corneal endothelium (retrocorneal fibrous membrane). [5] The retrocorneal membrane is continuous with a fibrovascular membrane extending from the iris (preiridal fibrovascular membrane) [6] and forms an anterior synechia. [7]
- The deep corneal stroma is infiltrated by vessels (neovascularization) [8] and there is infiltration of pigmented cells, lymphocytes and plasma cells along Descemet's membrane. [9] Slight fibroplasia is present.
- Changes in the iris stroma include congestion, hemorrhage, edema and infiltration by lymphocytes and plasma cells. [10-11] A fibrous membrane extends from the posterior iris and along the anterior lens capsule causing adherence of the iris to the anterior lens capsule (posterior synechia) [12] resulting in the bowing forward of the iris (iris bombé). [13]
- The lens is displaced and lens fibers of the equator are swollen. [14] The posterior cortex is liquefied and contains globules [15] and an area of ossification (not present in all section). Lens epithelial cells extend along the posterior capsule and form a thin fibrous metaplastic plaque. [16]
- The vitreous body is collapsed and is intermixed with fibrin and blood. [17] There are multifocal aggregates of fibrin in the choroid.
- The sensory retina is totally detached and markedly atrophied. [18] There is doming and individualization of the retinal pigment epithelium (RPE) accompanying the retinal detachment. [19] Focal aggregates of RPE cells with a myxomatous stroma are present.

**Morphologic Diagnosis(es):** Retrocorneal fibrous membrane, iris bombé, intraocular hemorrhage, perilenticular fibrosis, lens displacement, cataract, retinal detachment and atrophy [20]