



ECVP/ESVP Summer School in Veterinary Pathology



Marie Curie Training Courses

Summer School 2006 – Eye 06RD0212

Research No.: 06RD0212
Owner: The Milwaukee Zoo
Animal: Mandrill Baboon

The tissue submitted is both Davidson's fixed globes from a female Mandrill Baboon estimated at 21 years of age. One globe was sectioned in the vertical plane and the second globe was sectioned in the horizontal plane. Both globes show largely normal features for a primate eye. There are early cortical cataractous changes characterized by the presence of morgagnian globules and bladder cells best seen in the anterior and posterior cortex. Both globes have abnormalities in the retina limited to the peripapillary retina and foveal retina. There is retinal thickening with multiple, sometimes coalescing, cavitated lesions within the inner nuclear layer, inner plexiform layer, and outer nuclear layer. In small areas, there is fluid accumulation in the subretinal space and swelling of retinal pigment epithelial cells. A second feature is exudation of protein material around blood vessels in the affected retina. This protein stains strongly positive with PAS. A PAS stain shows thickening of the wall of choriocapillaris capillaries, few retinal vessels, and small choroidal blood vessels most prominently seen in areas of retinal edema. The thickened vascular walls sometimes have a lamellar appearance, and in other areas have a solid PAS-positive thickening of the wall.

Diagnosis:

1. Bilateral cortical cataract
2. Papillary and foveal retinal edema
3. Hypertensive vasculopathy, retinal and choroidal
4. Greater than 2 years of poorly regulated diabetes mellitus, as per history