

WOPTS

Slide 26, Neo 949, 96RD189

The slide is a vertical section of a cat eye. The cornea is largely within normal limits, except that the endothelium is artifactually detached and disrupted because of a cellular infiltrate which consists of a mixture of neoplastic round cells, red blood cells, cellular fragments, and free melanin pigment. In addition, histiocytic cells, often containing melanin or hemosiderin pigment, are also disrupting the endothelium. In some areas, there is a **retrocorneal membrane**. The corneal epithelium is thin, but largely intact. The anterior uvea, including the ciliary body and iris stroma, is heavily infiltrated with a mixture of neoplastic round cells and smaller numbers of histiocytes, neutrophils, and tissue edema. Areas of neoplastic infiltrate consist of solid sheets of large lymphoblastic cells pushed between preexisting uveal stromal features. There is a tendency for the neoplastic cells to colonize the iris epithelium and, even more so, the ciliary body nonpigmented epithelium. Tumor cells extend in the ciliary body stroma to the pars plana. There is little evidence of a secondary inflammatory lymphoplasmacytic infiltrate and the neoplastic infiltrate is quite diffuse throughout the anterior uvea. Smaller numbers of neoplastic lymphocytes are seen intermittently in the choroid. The retinal profile returns to normal, with no evidence of glaucoma.

Diagnoses:

- 1. Anterior uveal lymphosarcoma**
- 2. Retrocorneal membrane**

Comment: About half the cases of intraocular lymphosarcoma in cats occur in eyes that have a concurrent lymphoplasmacytic inflammatory infiltrate and neoplastic infiltrate and half the cases occur, as in this eye, as a purely neoplastic infiltrate. Those cases in which the neoplastic infiltrate occurs in the absence of lymphoplasmacytic inflammation, tend to have a more diffusely infiltrative neoplasm in the anterior uvea. In both cases, the tumor is primarily anterior uvea.