

NTP Nonneoplastic Lesion Atlas

Eye, Anterior chamber – Proteinaceous fluid

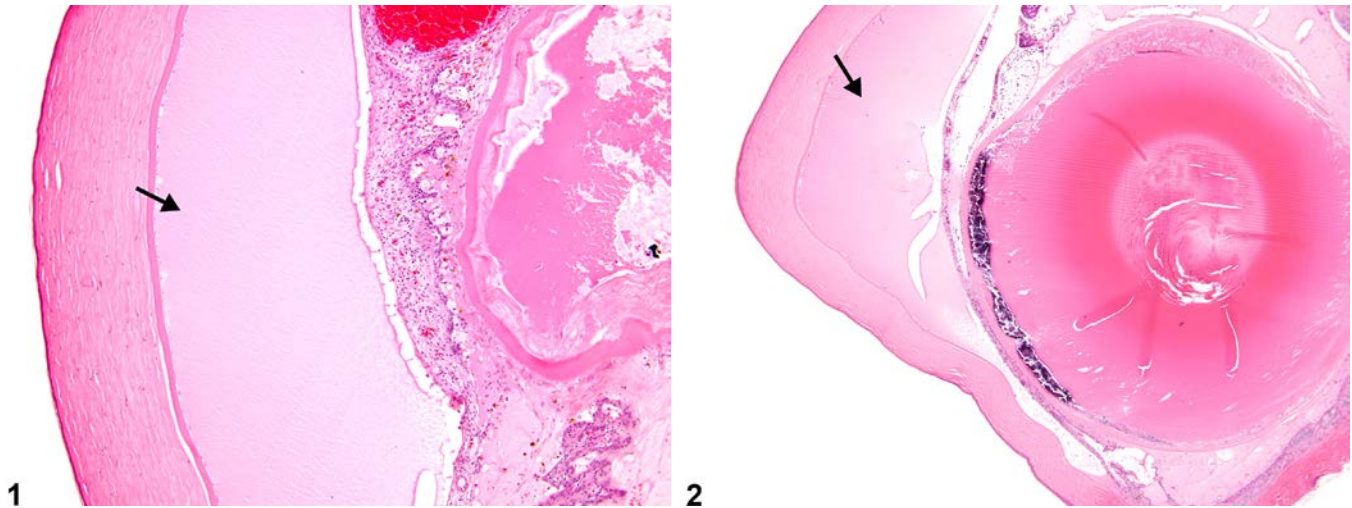
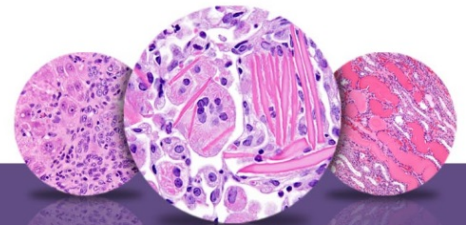


Figure Legend: **Figure 1** Eye, Anterior chamber - Proteinaceous fluid in a female F344/N rat from a chronic study. Anterior chamber proteinaceous fluid (arrow) is characterized by accumulations of homogeneous pale eosinophilic material that contains few if any inflammatory cells. **Figure 2** Eye, Anterior chamber - Proteinaceous fluid in a female F344/N rat from a chronic study. There are accumulations of homogeneous pale eosinophilic material in the anterior chamber (arrow) that contains few if any inflammatory cells.

Comment: Anterior chamber proteinaceous fluid is characterized by intracameral accumulations of homogeneous pale eosinophilic material (often including fibrin) that contains few if any inflammatory cells (Figure 1 and Figure 2). Anterior chamber proteinaceous fluid can compress the iridocorneal filtration angle channels and/or the adjacent trabecular meshwork, impeding normal drainage of aqueous humor with resultant elevations in intraocular pressure. (Other ocular lesions in Figure 1 and/or Figure 2 include posterior synechiae, lens cataract with mineralization, and/or iridial inflammation.)

Recommendation: Proteinaceous fluid in the anterior chamber should be diagnosed as “Eye, Anterior chamber - Proteinaceous fluid” and assigned a severity grade. If anterior chamber proteinaceous fluid is part of a more dispersed inflammatory process in the eye, it need not be diagnosed separately but should be described in the pathology narrative.



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References:

National Toxicology Program. 1997. NTP TR-450. Toxicology and Carcinogenesis Studies of Tetrafluoroethylene (CAS No. 116-14-3) in F344 Rats and B6C3F₁ Mice (Inhalation Studies). NTP, Research Triangle Park, NC.

Abstract: <http://ntp.niehs.nih.gov/go/6044>

Smith RS, Sundberg JP, John SWM. 2002. The anterior segment. In: Systematic Evaluation of the Mouse Eye: Anatomy, Pathology, and Biomethods (Smith RS, John SWM, Nishina PM, Sundberg JP, eds). CRC Press, Boca Raton, FL, 111-159.

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