Figure Legend: Figure 1 Eye - Phthisis bulbi in a female B6C3F1 mouse from a chronic study. Phthisis bulbi ("end-stage" eye) is characterized by prominent shrinkage of the globe with marked structural displacement and disorganization. Figure 2 Eye - Phthisis bulbi in a female B6C3F1 mouse from a chronic study. The globe is shrunken with marked structural displacement and disorganization. Figure 3 Eye - Phthisis bulbi in a female B6C3F1 mouse from a chronic study. There is marked shrinkage of the globe (arrow) with marked structural displacement and disorganization. Figure 4 Eye - Phthisis bulbi in a female B6C3F1 mouse from a lifetime study. The globe is shrunken (arrow) with marked structural displacement and disorganization and compressed by a large Harderian gland carcinoma (H).
Comment: Phthisis bulbi (Figure 1, Figure 2, Figure 3, and Figure 4) is the diagnostic term used for the "end-stage" eye morphology resulting from severe injury from various causes, such as trauma, inflammation, excess exposure to ionizing radiation or ambient light, or physical compression by space-occupying orbital masses, such as neoplasms of the Harderian gland (Figure 4). Phthisis bulbi is characterized by prominent shrinkage of the globe with marked displacement and disorganization of ocular structures.

Recommendation: Phthisis bulbi should be diagnosed as present without assignment of a severity grade. Changes in the various ocular subtopographies should not be diagnosed separately as they are included in the collective diagnostic term “phthisis bulbi.” If an inciting cause (e.g., a foreign body) is present, it should be diagnosed separately, and the association between the two lesions should be described in the narrative.

References:


Abstract: http://www.cacheriverpress.com/books/pathmouse.htm

Full-text: http://iai.asm.org/content/20/1/25.full.pdf

Full-text: http://tpx.sagepub.com/content/35/6/817.full

National Toxicology Program. 1979. NTP TR-189. Bioassay of *p*-Chloroaniline for Possible Carcinogenicity (CAS No. 106-47-8). National Cancer Institute, Bethesda, MD.
Abstract: http://ntp.niehs.nih.gov/go/10109

National Toxicology Program. 1989. NTP TR-351. Toxicology and Carcinogenesis Studies of *para*-Chloroaniline Hydrochloride (CAS No. 20265-96-7) in F344/N Rats and B6C3F1 Mice (Gavage Studies). NTP, Research Triangle Park, NC.
Abstract: http://ntp.niehs.nih.gov/go/6963
References:

National Toxicology Program. 1992. NTP TR-410. Toxicology and Carcinogenesis Studies of Naphthalene (CAS No. 91-20-3) in B6C3F1 Mice (Inhalation Studies). NTP, Research Triangle Park, NC.  

National Toxicology Program. 1992. NTP TR-411. Toxicology and Carcinogenesis Studies of C.I. Pigment Red 23 (CAS No. 6471-49-4) in F344 Rats and B6C3F1 Mice (Feed Studies). NTP, Research Triangle Park, NC.  
Abstract: [http://ntp.niehs.nih.gov/go/7702](http://ntp.niehs.nih.gov/go/7702)

Abstract: [http://tpx.sagepub.com/content/19/2/148.short](http://tpx.sagepub.com/content/19/2/148.short)


Abstract: [http://www iovs.org/content/25/9/1065.short](http://www iovs.org/content/25/9/1065.short)

Abstract: [http://www cacheriverpress.com/books/pathmouse.htm](http://www cacheriverpress.com/books/pathmouse.htm)

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