Figure Legend: Figure 1 Harderian gland - Atrophy in a female B6C3F1 mouse from a chronic study. The alveoli are shrunk, tortuous and lined by variably flattened epithelial cells (arrow), and there is concurrent interstitial fibrosis (arrowhead). Figure 2 Harderian gland - Atrophy in a female B6C3F1 mouse from a chronic study. Higher magnification showing the shrunk, tortuous acini with the variably flattened epithelial cells (arrow) and the interstitial fibrosis in more detail.

Comment: Harderian gland atrophy (with or without concurrent fibrosis) results from various causes, including trauma from retro-bulbar bleeding procedures; genetic mutations; nutritional deficiencies; as a reaction to foreign bodies or accretions of excess porphyrin secretory material; or as a sequel to degeneration or inflammation from various causes. The lesion is characterized by alveoli that are shrunk to slightly widened, tortuous, and lined by variably flattened epithelial cells (Figure 1 and Figure 2). Atrophy is often accompanied by interstitial fibrosis.

Recommendation: Harderian gland atrophy should be diagnosed and assigned a severity grade whenever present. Any associated reactive fibrosis should not be diagnosed separately unless warranted by severity, but should be described in the pathology narrative. Other associated lesions (such as inflammation) should be diagnosed separately. If atrophy is a main component of another lesion (such as inflammation or fibrosis), it need not be diagnosed separately (unless warranted by severity), but should be described in the pathology narrative.
References:

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


National Toxicology Program. 1983. NTP TR-244. Toxicology and Carcinogenesis Studies of a Polybrominated Biphenyl Mixture (Firemaster FF-1) in F344/N Rats and B6C3F1 Mice (Gavage Studies). NTP, Research Triangle Park, NC.
Abstract: http://ntp.niehs.nih.gov/go/7095

National Toxicology Program. 1997. NTP TR-461. Toxicology and Carcinogenesis Studies of Nitromethane (CAS No. 75-52-5) in F344/N Rats and B6C3F1 Mice (Inhalation Studies). NTP, Research Triangle Park, NC.

Full-text: http://vet.sagepub.com/content/26/3/238.full.pdf

Full-text: http://www.iovs.org/content/50/9/4311.full

Abstract: http://lan.sagepub.com/content/26/1/53.short
Harderian Gland – Atrophy

References:

Author:
Margarita M. Gruebbel, DVM, PhD, DACVP
Senior Pathologist
Experimental Pathology Laboratories, Inc.
Research Triangle Park, NC