



NTP Nonneoplastic Lesion Atlas

Harderian Gland – Hemorrhage

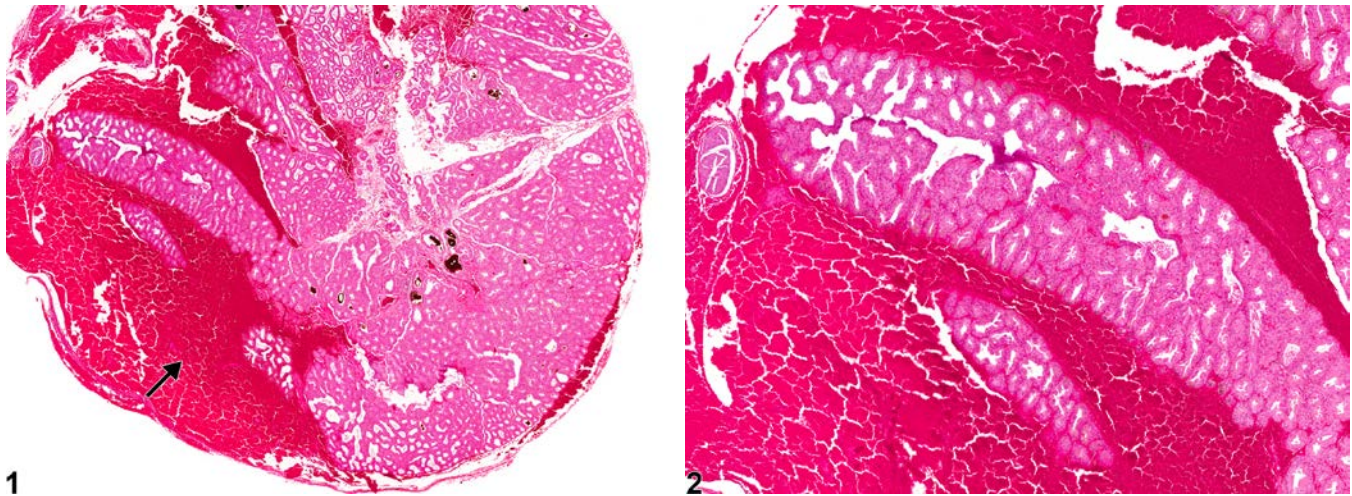


Figure Legend: **Figure 1** Harderian gland - Hemorrhage in a male Fischer 344\N rat from a chronic study. There are abundant extravasated blood cells in the Harderian gland. **Figure 2** Harderian gland - Hemorrhage in a male Fischer 344\N rat from a chronic study (higher magnification of Figure 1). Higher magnification of the extravasated red blood cells.

Comment: Harderian gland hemorrhage consists of variable numbers of extravasated blood cells in the gland interstitium and/or alveoli (Figure 1 and Figure 2). A common cause is trauma from retro-orbital bleeding procedures.

Recommendation: Harderian gland hemorrhage should be diagnosed with assignment of a severity grade. Hemorrhage secondary to other lesions (e.g., inflammation) should not be diagnosed separately unless warranted by severity.

References:

Botts S, Jokinen M, Gaillard ET, Elwell MR, Mann PC. 1999. Salivary, Harderian, and lacrimal glands. In: Pathology of the Mouse: Reference and Atlas (Maronpot RR, Boorman GA, Gaul BW, eds). Cache River Press, Vienna, IL, 49-79.

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

National Toxicology Program. 1989. NTP TR-352. Toxicology and Carcinogenesis Studies of N-Methylolacrylamide (CAS No. 924-42-5) in F344/N Rats and B6C3F₁ Mice (Gavage Studies). NTP, Research Triangle Park, NC.

Abstract: <http://ntp.niehs.nih.gov/go/6965>



National Toxicology Program
U.S. Department of Health and Human Services



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