



NTP Nonneoplastic Lesion Atlas

Preputial Gland – Necrosis

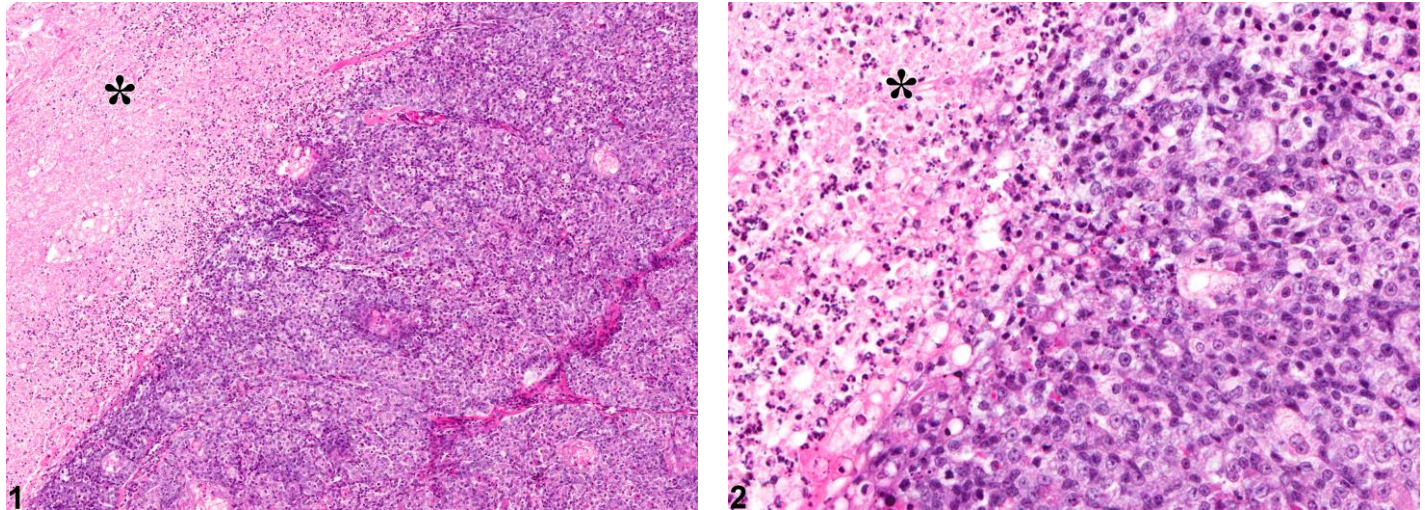
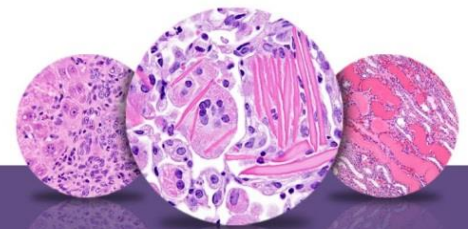


Figure Legend: **Figure 1** Preputial Gland - Necrosis. Asterisk indicates area of necrosis from a male F344/N rat in a chronic study. **Figure 2** Preputial Gland - Necrosis. Higher magnification of Figure 1. Asterisk indicates accumulation of cellular, pyknotic, and karyorrhectic debris from a male F344/N rat in a chronic study.

Comments: Necrosis of preputial gland consists of loss of cellular detail, hypereosinophilia, and replacement by cellular and karyorrhectic debris (asterisk, Figure 1 and Figure 2). The necrotic area is often distinct from the adjacent unaffected gland (Figure 1 and Figure 2). The necrotic debris should be carefully differentiated from the hypereosinophilic keratinous material normally observed within ducts. Necrosis can be focal or multifocal, may involve one or both glands, and may be associated with inflammation. In Figure 1 and Figure 2, the necrosis is the major response without associated inflammation.

Recommendation: Necrosis should be recorded and graded, and if exacerbated by chemical administration, this should be documented in the pathology narrative. If both glands are affected, the diagnosis should be qualified as bilateral and the severity based on the more severely affected gland. When necrosis is present as a secondary response to inflammation, it need not be diagnosed unless unusually severe but may be mentioned in the pathology narrative.



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References:

Boorman GA, Elwell MR, Mitsumori K. 1990. Male accessory sex glands, penis, and scrotum. In: Pathology of the Fischer Rat: Reference and Atlas (Boorman GA, Eustis SL, Elwell MR, Montgomery CA, MacKenzie WF, eds). Academic Press, San Diego, 419-428.

Abstract: <http://www.ncbi.nlm.nih.gov/nlmcatalog/9002563>

Gordon LR, Majka JA, Boorman GA. 1996. Spontaneous nonneoplastic and neoplastic lesions and experimentally induced neoplasms of the testes and accessory sex glands. In: Pathobiology of the Aging Mouse, Vol 1 (Mohr U, Dungworth DL, Capen CC, Carlton WW, Sundberg JP, Ward JM, eds). ILSI Press, Washington, DC, 421-441.

Abstract: <http://catalog.hathitrust.org/Record/008994685>

Haines DC, Eustis SL. 1990. Specialized sebaceous glands. In: Pathology of the Fischer Rat: Reference and Atlas (Boorman GA, Eustis SL, Elwell MR, Montgomery CA, MacKenzie WF, eds). Academic Press, San Diego, 279-293.

Abstract: <http://www.ncbi.nlm.nih.gov/nlmcatalog/9002563>

Rudmann D, Cardiff R, Chouinard L, Goodman D, Kuttler K, Marxfeld H, Molinolo A, Treumann S, Yoshizawa K. 2012. Proliferative and nonproliferative lesions of the rat and mouse mammary, Zymbal's, preputial, and clitoral glands. Toxicol Pathol 40:7S-39S.

Abstract: <http://www.ncbi.nlm.nih.gov/pubmed/22949413>

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