



NTP Nonneoplastic Lesion Atlas

Prostate, Epithelium – Degeneration

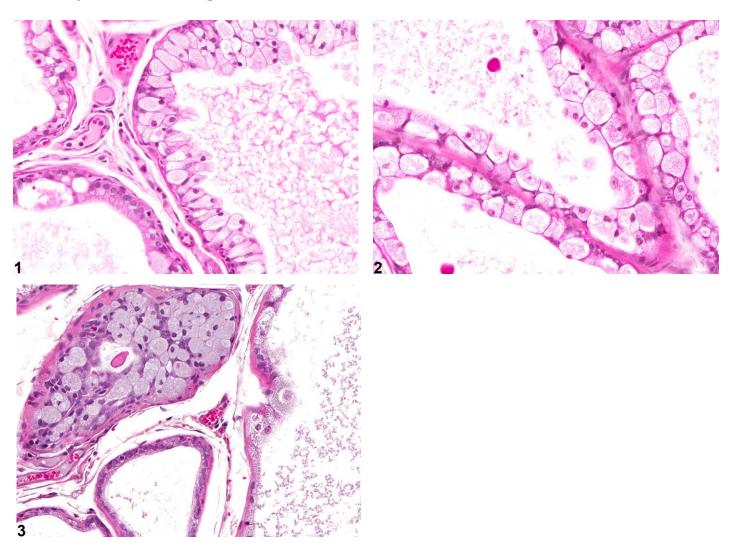


Figure Legend: Figure 1 Prostate, Epithelium - Degeneration. Degeneration of the epithelium in the prostate in a male F344/N rat from a chronic study. **Figure 2** Prostate, Epithelium - Degeneration. Degeneration of the epithelium in the prostate in a male F344/N rat from a chronic study. **Figure 3** Prostate, Epithelium - Degeneration. Degeneration of the epithelium in the prostate in a male F344/N rat from a chronic study.

Comment: Epithelial degeneration is characterized by granular to foamy cytoplasm alteration of enlarged acinar epithelial cells that form a single lining layer (Figure 1 and Figure 2) or exfoliate and occlude the lumen of acini (Figure 3). Affected cells are enlarged with abundant finely granular cytoplasm and may rupture and disintegrate. Epithelial degeneration can be focal or multifocal. The





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lesion can be observed in any lobe, but is most commonly found in the ventral lobe. Epithelial degeneration is a fairly common observation in the aging prostate. The lesion may be accompanied by inflammatory infiltrates.

Recommendation: When present, this lesion should be diagnosed and graded. Exacerbation by chemical agents warrants documentation in the pathology narrative. The affected lobe(s) should be identified if possible and indicated in the tissue identification. If paired lobes are involved, the diagnosis should indicate that the change is bilateral, with severity based on the more severely affected lobe.

References:

Bosland MC. 1992. Lesions in the male accessory glands and penis. In: Pathobiology of the Aging Rat, Vol 1 (Mohr U, Dungworth DL, Capen CC, eds). ILSI Press, Washington, DC, 443-467. Abstract: http://catalog.hathitrust.org/Record/008994685

Creasy D, Bube A, de Rijk E, Kandori H, Kuwahara M, Masson R, Nolte T, Reams R, Regan K, Rehm S, Rogerson P, Whitney K. 2012. Proliferative and nonproliferative lesions of the rat and mouse male reproductive system. Toxicol Pathol 40:40S-121S.

Abstract: http://www.ncbi.nlm.nih.gov/pubmed/22949412

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

Greaves P. 2007. Male genital tract. In: Histopathology of Preclinical Toxicity Studies: Interpretation and Relevance in Drug Safety Evaluation. 3rd ed. Academic Press San Diego, 661-716. Abstract: http://www.sciencedirect.com/science/book/9780444527714

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