

NTP Nonneoplastic Lesion Atlas

Prostate – Edema

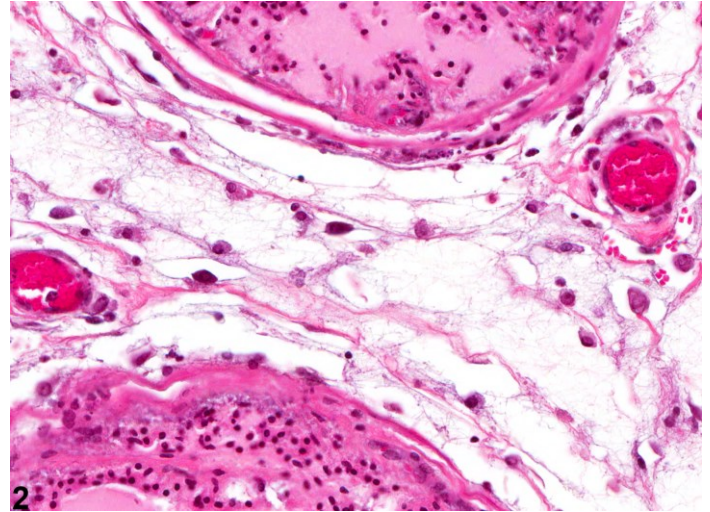
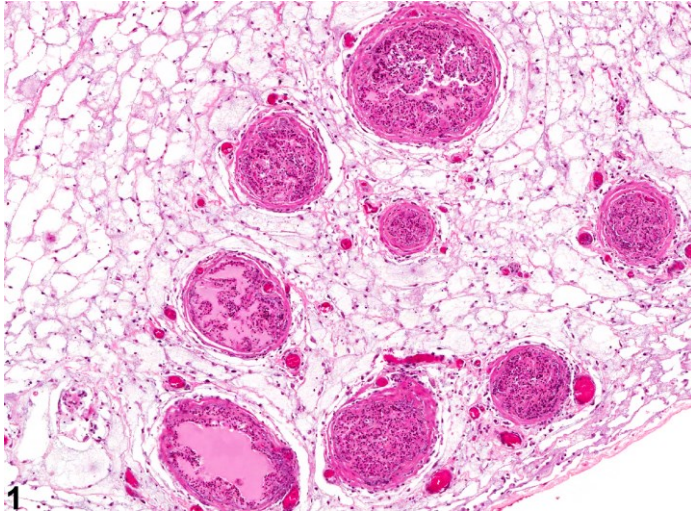


Figure Legend: **Figure 1** Prostate - Edema. Edema of the prostate from a male F344/N rat in a chronic study. **Figure 2** Prostate - Edema. Higher magnification of Figure 1. Edema of the prostate from a male F344/N rat in a chronic study.

Comments: Edema is not a common finding in the prostate and may be related to interruption of vascular drainage. The interstitium is expanded by lightly staining eosinophilic and delicate wispy material. When present, a search for an apparent cause is appropriate. Inflammatory cytokines, substance P, and cytotoxic inflammatory factor type 1-positive *E. coli* have been associated with prostate edema in rats. Sporadic cases of prostate edema have been documented in NTP rat and mouse studies.

Recommendation: When present, edema should be diagnosed and graded. Because it is interstitial, one or more lobes may be affected, and a lobe qualifier may not be needed.

References:

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>

Rippere-Lampe KE, Lang M, Ceri H, Olson M, Lockman HA, O'Brien AD. 2001. Cytotoxic necrotizing factor type 1-positive *Escherichia coli* causes increased inflammation and tissue damage to the prostate in a rat prostatitis model. *Infect Immun* 69:6515-6519.

Full Text: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC98788/>



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References:

Vera PL, Meyer-Siegler KL. 2004. Inflammation of the rat prostate evokes release of macrophage migration inhibitory factor in the bladder: Evidence for a viscerovisceral reflex. J Urol 172:2440-2445.

Abstract: <http://www.ncbi.nlm.nih.gov/pubmed/15538287>

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