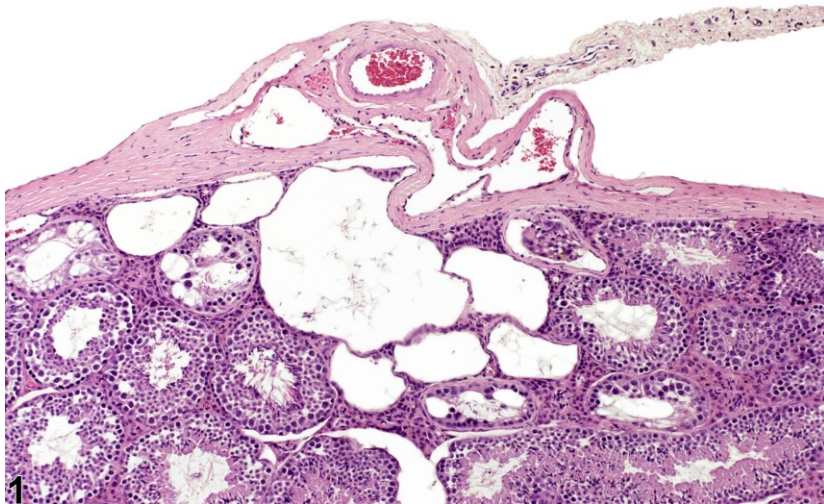


# NTP Nonneoplastic Lesion Atlas

## *Testis, Rete testis – Dilation*



**Figure Legend:** **Figure 1** Testis, Rete testis - Dilation in a male B6C3F1 mouse from a chronic study. The rete testis is dilated.

**Comment:** Dilation of the rete testis (Figure 1) is a relatively common incidental finding in aging mice. The normal rete testis comprises a series of ductular channels called tubuli recti that lie subjacent to the capsule at the cranial pole of the testis. They are lined by a low cuboidal epithelium and are joined to the seminiferous tubules by transitional tubules that are lined by Sertoli cells and occasional germ cells. The transitional tubules and the tubuli recti can be mistaken for atrophic seminiferous tubules (see “Male Reproductive System - Introduction” for normal histology of rete testis). Partial obstruction to the outflow of fluid from the testis is the most common cause of rete testis dilation, and this can be incidental or chemically induced. The finding may also be associated with dilation of the adjacent seminiferous tubular lumens (see “Testis, Seminiferous tubule - Dilation”). The dilated ducts may be empty or filled with sperm (see “Testis - Sperm Stasis”).

**Recommendation:** Rete testis dilation should be diagnosed and graded and should be discussed in the pathology narrative if the incidence and/or severity appears to be related to chemical administration. Bilateral involvement should be diagnosed when present. Attention should be paid to any evidence of gross or microscopic lesions within the initial segment of the epididymis or the epididymal fat pad (location of the efferent ducts) that may reflect sperm granulomas, sperm stasis, or dilated ducts. Rete



# NTP Nonneoplastic Lesion Atlas

## *Testis, Rete testis – Dilation*

testis dilation may be associated with seminiferous tubular dilation and/or germinal epithelial atrophy, since these may be a consequence of obstruction of fluid outflow.

### **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>

La DK, Johnson CA, Creasy DM, Hess RA, Baxter E, Pereira M, Snook SS. 2011. Efferent duct toxicity with secondary testicular changes in rats following administration of a novel leukotriene A4 hydrolase inhibitor. *Toxicol Pathol* 40:705-714.

Abstract: <http://www.ncbi.nlm.nih.gov/pubmed/22552396>

Piner J, Sutherland M, Millar M, Turner K, Newall D, Sharpe RM. 2002. Changes in vascular dynamics of the adult rat testis leading to transient accumulation of seminiferous tubule fluid after administration of a novel 5-hydroxytryptamine (5HT) agonist. *Reprod Toxicol* 16:141-150.

Abstract: <http://www.ncbi.nlm.nih.gov/pubmed/11955945>

### **Authors:**

Dianne M. Creasy, PhD, Dip RCPATH, FRCPath  
Dianne Creasy Consulting LLC  
Pipersville, PA

Robert R. Maronpot, DVM, MS, MPH, DACVP, DABT, FIATP  
Senior Pathologist  
Experimental Pathology Laboratories, Inc.  
Research Triangle Park, NC

Dipak K. Giri, DVM, PhD, DACVP  
Toxicologic Pathologist  
Integrated Laboratory Systems, Inc.  
Research Triangle Park, NC