

NTP Nonneoplastic Lesion Atlas

Ductus deferens – Inflammation, [Acute, Suppurative, Chronic, Chronic-active, Granulomatous]

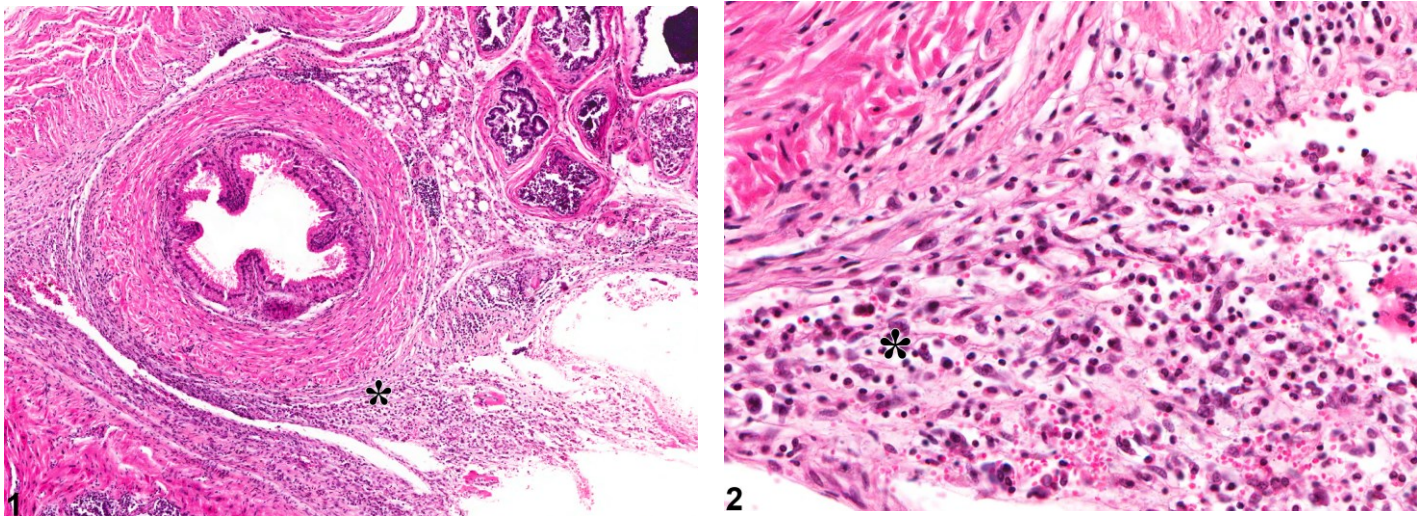
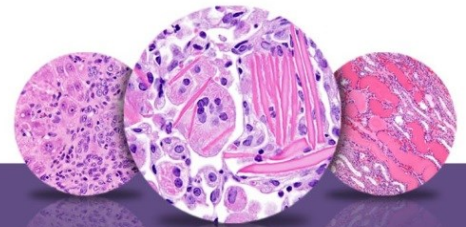


Figure Legend: **Figure 1** Ductus Deferens - Inflammation. Asterisk indicates infiltration of inflammatory cells in the muscle and surrounding tissue in a male B6C3F1 mouse from a chronic study. **Figure 2** Ductus Deferens - Inflammation. Higher magnification of Figure 1 showing infiltration of inflammatory cells in the muscle and surrounding tissue (asterisk) in a male B6C3F1 mouse from a chronic study.

Comments: Inflammation of ductus deferens is uncommon and may consist of infiltration of inflammatory cells in the muscular layer and in the surrounding tissue (asterisks, Figure 1 and Figure 2). It is likely an extension of a similar finding in adjoining tissue. In Figure 1 and Figure 2, it is limited to the muscular layer of the ductus deferens and surrounding tissue.

NTP studies have five standard categories of inflammation: acute, suppurative, chronic, chronic-active, and granulomatous. In *acute inflammation*, the predominant infiltrating cell is the neutrophil, though fewer macrophages and lymphocytes may also be present. There may also be evidence of edema or hyperemia. The neutrophil is also the predominant infiltrating cell type in *suppurative inflammation*, where they are aggregated, and many are degenerate (suppurative exudate). Cell debris from both the resident cell populations and infiltrating leukocytes, proteinaceous fluid containing fibrin, fewer macrophages, occasional lymphocytes or plasma cells, and, possibly, an infectious agent may also be present in the exudate. Grossly, these lesions would be characterized by the presence of pus. The



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tissue surrounding the exudate may have fibroblasts, fibrous connective tissue, and mixed inflammatory cells, depending on the chronicity of the lesion. Lymphocytes predominate in *chronic inflammation*. Lymphocytes also predominate in *chronic-active inflammation*, but there are also a significant number of neutrophils. Both lesions may contain macrophages. *Granulomatous inflammation* is another form of chronic inflammation, but this diagnosis requires the presence of a significant number of aggregated, large, activated macrophages, epithelioid macrophages, or multinucleated giant cells.

Recommendation: Inflammation of the ductus deferens should be diagnosed, classified, and graded. If it is part of a generalized inflammation of accessory sex glands and surrounding tissues, it is not necessary to provide a separate diagnosis for the ductus deferens, but it should be described in the pathology narrative.

Reference:

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>

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