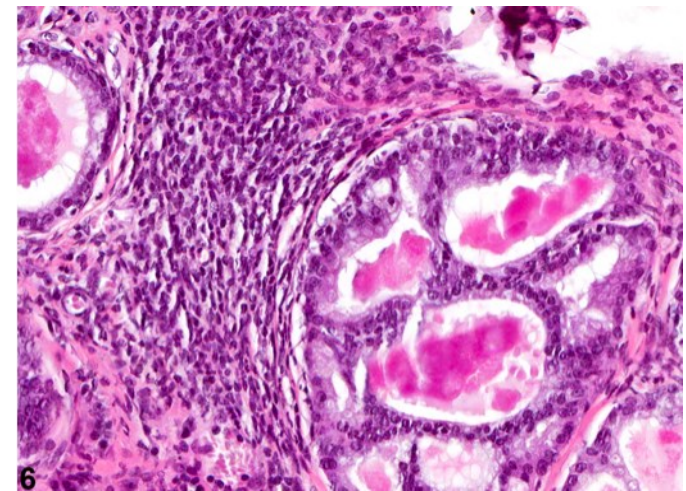
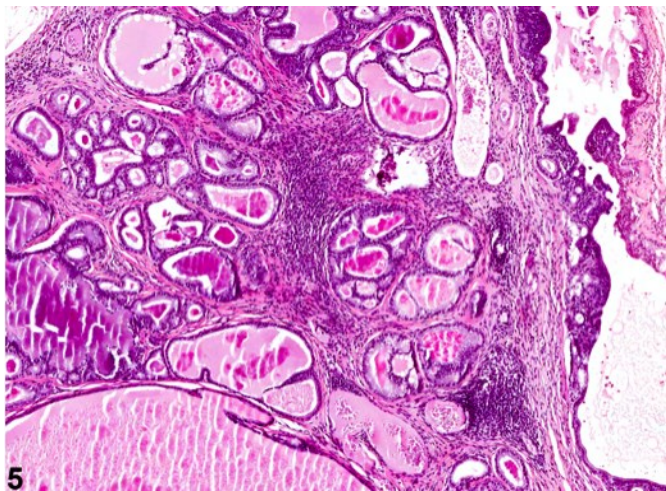
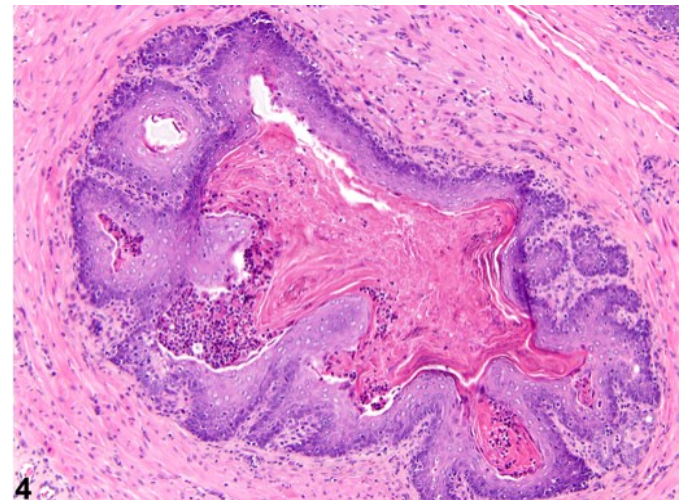
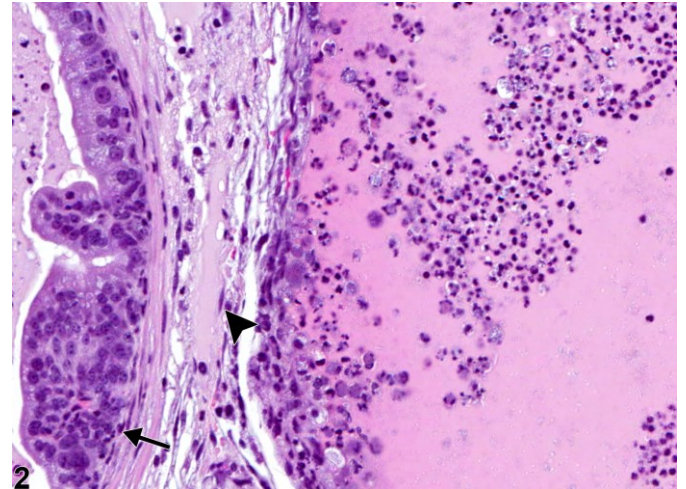
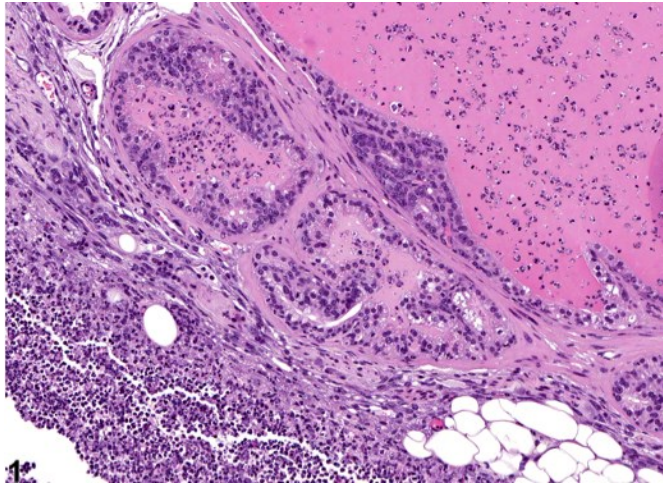
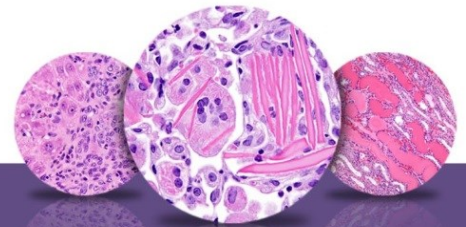


NTP Nonneoplastic Lesion Atlas

Seminal Vesicle – Inflammation, [Acute, Suppurative, Chronic, Chronic-active, Granulomatous]





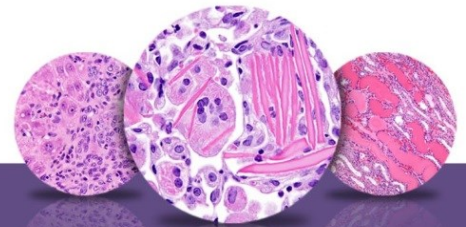
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Figure Legend: **Figure 1** Seminal Vesicle - Inflammation. Acute inflammation in a male B6C3F1 mouse from a chronic study. **Figure 2** Seminal Vesicle - Inflammation. Arrow indicates an area of hyperplasia, and arrowhead points to epithelial necrosis in a male B6C3F1 mouse from a chronic study. **Figure 3** Seminal Vesicle - Inflammation. Acute inflammation in a male Harlan Sprague-Dawley rat from a chronic study. **Figure 4** Seminal Vesicle - Inflammation. Higher magnification of Figure 3 showing squamous metaplasia in a male Harlan Sprague-Dawley rat from a chronic study. **Figure 5** Seminal Vesicle - Inflammation. Chronic inflammation in a male B6C3F1 mouse from a chronic study. **Figure 6** Seminal Vesicle - Inflammation. Higher magnification of Figure 5. Chronic inflammation in a male B6C3F1 mouse from a chronic study.

Comments: Inflammation of the seminal vesicle can be acute with a neutrophilic infiltrate in the interstitial as well as in the glandular lumen (Figure 1 and Figure 2). In Figure 2 the inflammation has destroyed the glandular architecture. In Figure 3 and Figure 4 it is associated with squamous metaplasia of some affected glands. The inflammatory response may also be associated with hyperplasia (arrow, Figure 2) and epithelial necrosis (arrowhead, Figure 2). Inflammation can be a more chronic, primarily interstitial reaction, with breaking up of the mucosa into small glandular structures (Figure 5 and Figure 6). Seminal vesicle inflammation is a sporadic incidental finding seen in older rats and mice.

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*, but they are aggregated, and many of them 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 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



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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: The inflammation should be diagnosed and given a severity grade. When both seminal vesicles are involved, the diagnosis should be qualified as bilateral and the severity based on the more severely affected seminal vesicle. Hyperplasia and squamous metaplasia secondary to inflammation should not be diagnosed separately unless warranted by severity or especially dominant. Indication of secondary squamous metaplasia and/or hyperplasia can be described in the pathology narrative.

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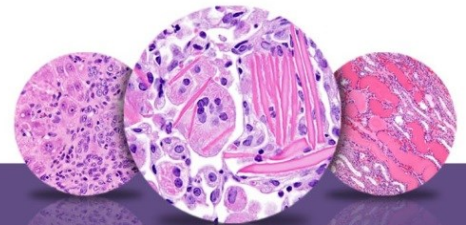
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