



NTP Nonneoplastic Lesion Atlas

Preputial Gland – Inflammation, [Acute, Suppurative, Chronic, Chronic-active, Granulomatous]

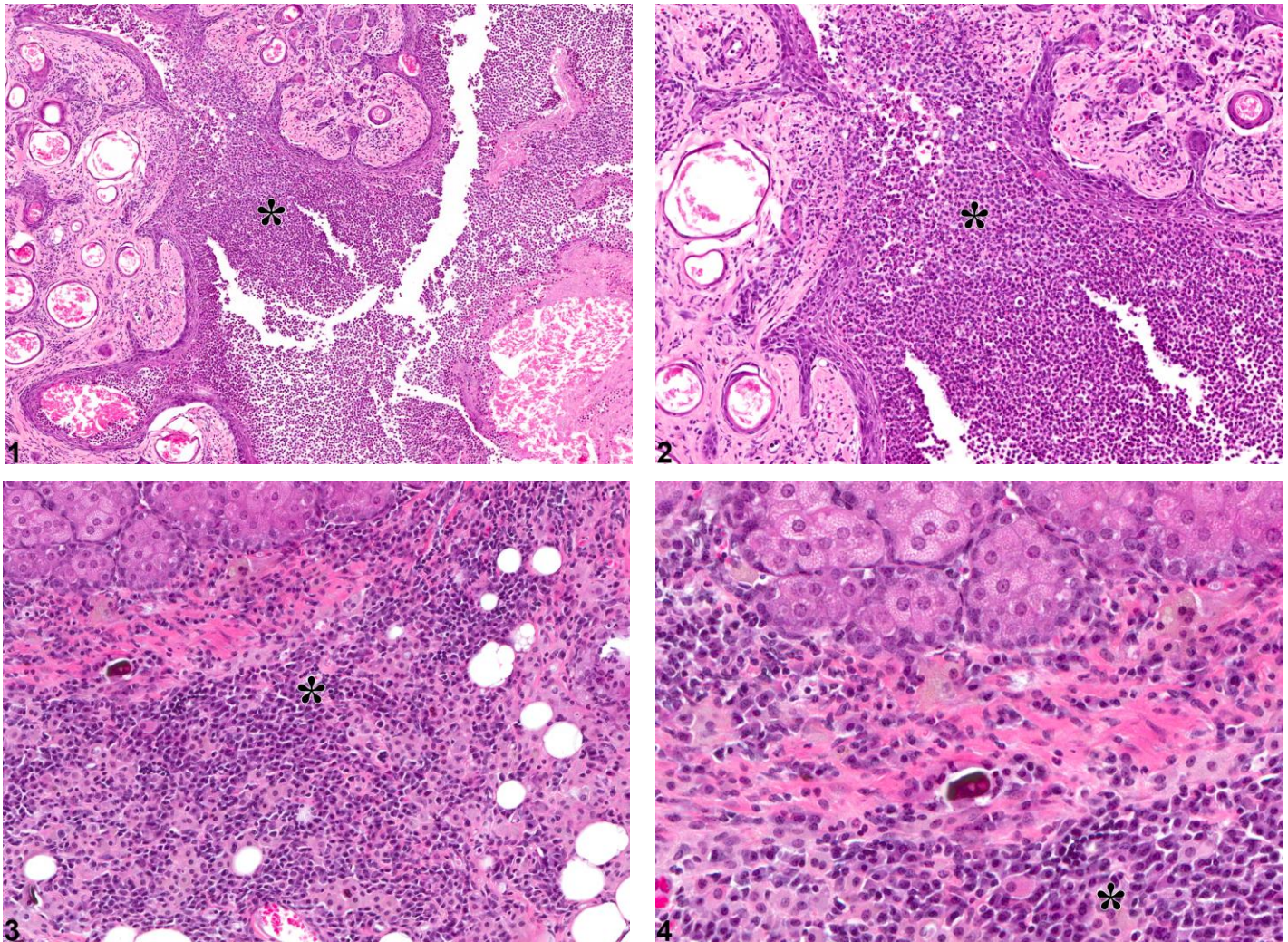
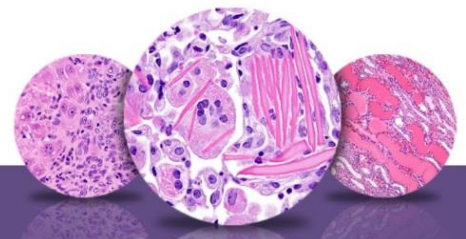


Figure Legend: **Figure 1** Preputial Gland - Inflammation. Asterisk indicates cellular exudates in a male F344/N rat from a chronic study. **Figure 2** Preputial Gland - Inflammation. Higher magnification of Figure 1. Asterisk indicates cellular exudates in a male F344/N rat from a chronic study. **Figure 3** Preputial Gland - Inflammation. Asterisk indicates cellular exudates in a male B6C3F1 mouse from a chronic study. **Figure 4** Preputial Gland - Inflammation. Higher magnification of Figure 3. Asterisk indicates cellular exudates in a male B6C3F1 mouse from a chronic study.



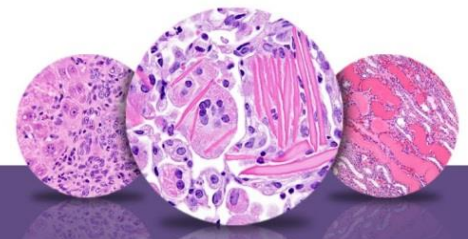
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Comments: Preputial gland inflammation consists of infiltration of abundant cellular exudates (asterisks, Figure 1, Figure 2, Figure 3 and, Figure 4) in the gland and the ducts. The inflammation can be suppurative (Figure 1 and Figure 2) or chronic/chronic-active (Figure 3 and Figure 4). Inflammation is common, particularly in older animals. This lesion can be focal, multifocal, or diffuse and may involve one or both glands.

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 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 preputial gland should be recorded, classified, and graded. If both glands are involved, the diagnosis should be clarified as bilateral and the severity based on the more severely affected gland.



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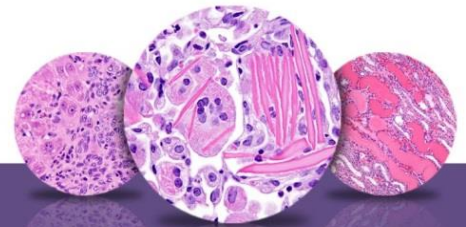
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