Coagulating gland – Inflammation, [Acute, Suppurative, Chronic, Chronic-active, Granulomatous]

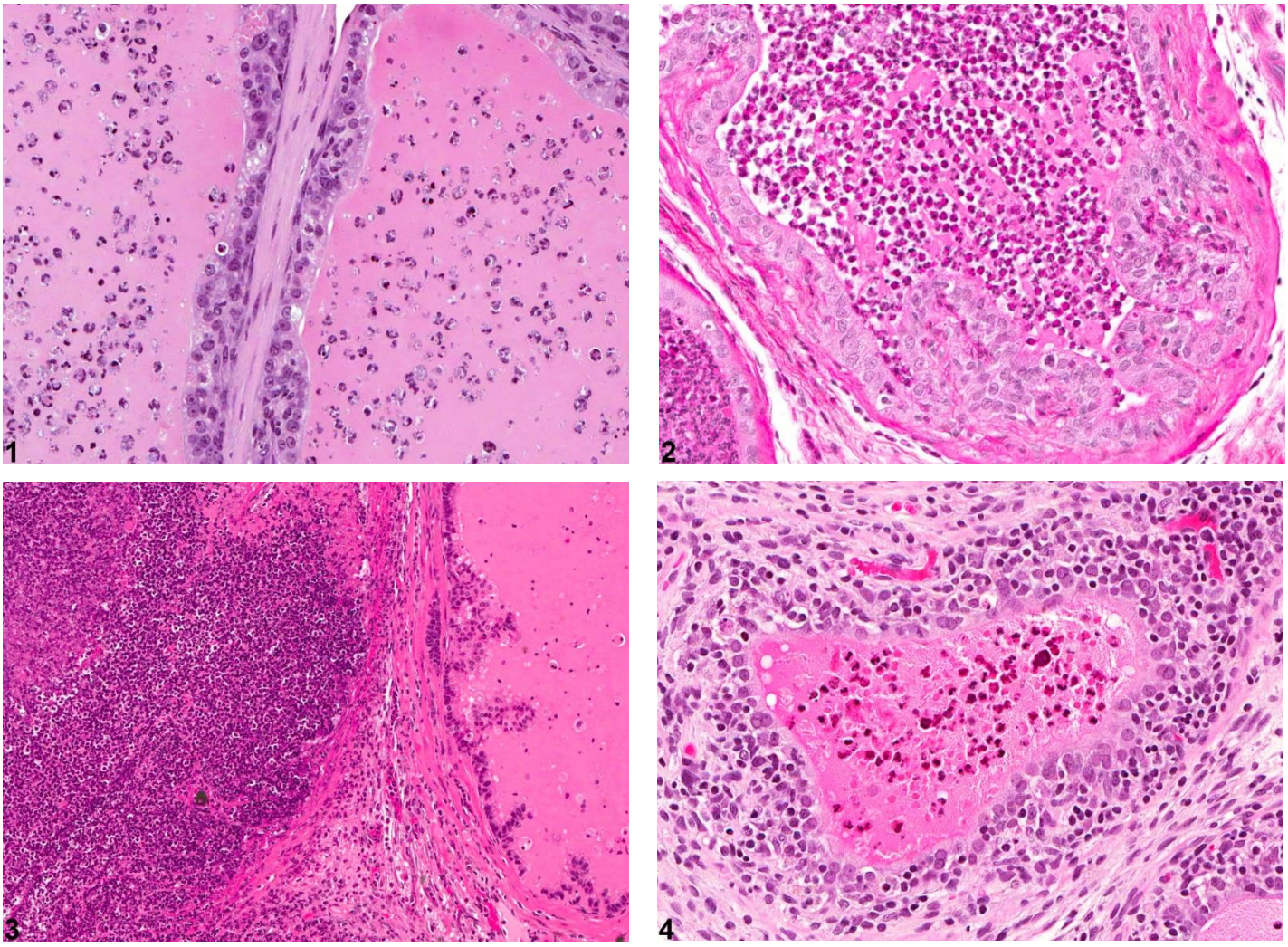
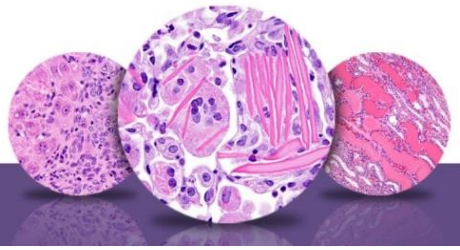


Figure Legend: Figure 1 Coagulating Gland - Inflammation. Acute inflammation in a male B6C3F1 mouse from a chronic study. **Figure 2** Coagulating Gland - Inflammation. Acute inflammation in a male Wistar rat from a chronic study. **Figure 3** Coagulating Gland - Inflammation. Abscesses in a male Swiss CD-1 mouse from a chronic study. **Figure 4** Coagulating Gland - Inflammation. Chronic to chronic-active inflammation in a male F344/N rat from a chronic study.

Comments: Inflammation of the coagulating gland can be acute (Figure 1 and Figure 2), form abscesses (Figure 3), or be chronic to chronic-active (Figure 4). In acute inflammation, the



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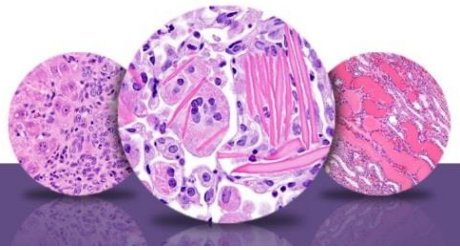
cellular infiltrates are present in the glandular epithelium, stroma, and secretion. In chronic inflammation, the stroma is expanded by mixed cellular exudate, fibroblasts, and collagen. Squamous metaplasia may accompany inflammation in some cases. Coagulating gland inflammation may occur as an incidental finding and is usually unrelated to administration of xenobiotics**.**

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: Whenever present, inflammation should be diagnosed, classified, and graded. Secondary changes such as squamous metaplasia do not require a separate diagnosis unless warranted by their degree of severity. When both glands are involved, the diagnosis should be qualified as bilateral and the severity based on the more severely affected gland.



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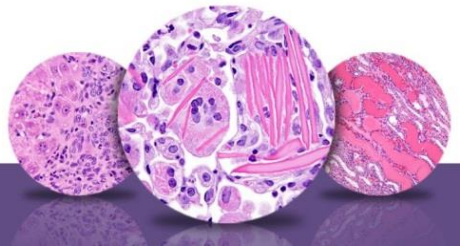

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