

NTP Nonneoplastic Lesion Atlas

Adrenal Gland – Infarct

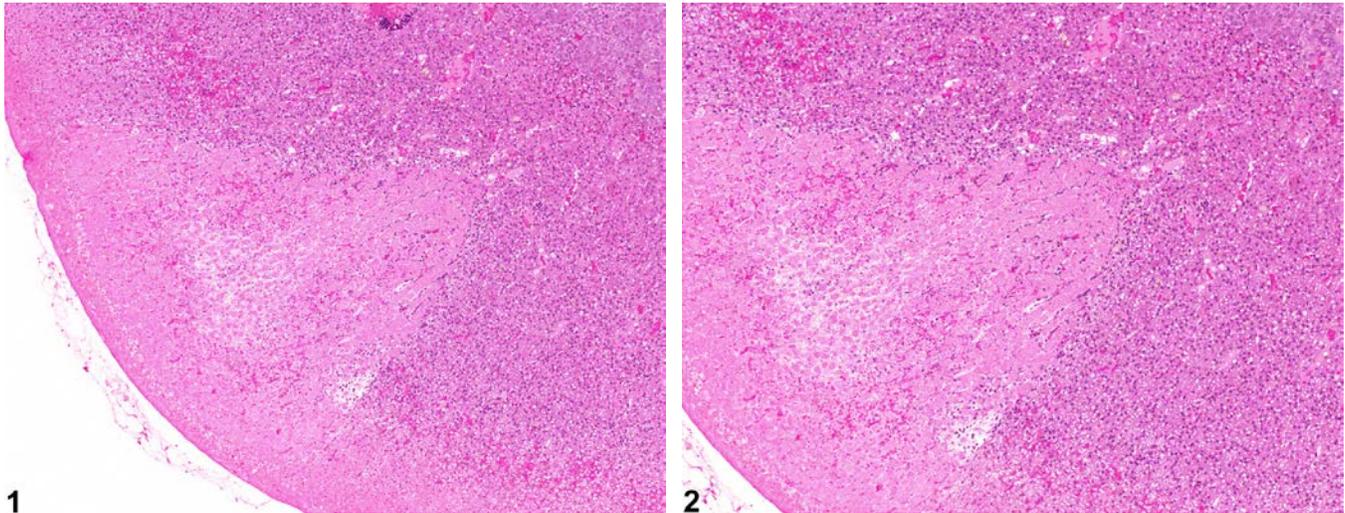
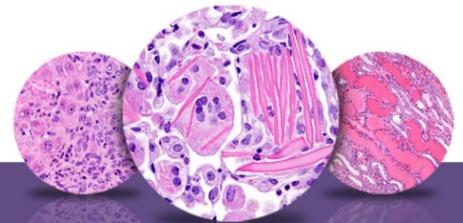


Figure Legend: **Figure 1** Adrenal gland, Cortex - Infarct in a female F344/N Rat from a chronic study. There is a focal, acute infarct in the adrenal cortex characterized by a wedge-shaped zone of necrosis. **Figure 2** Adrenal gland, Cortex - Infarct in a female F344/N rat from a chronic study (higher magnification of Figure 1). The wedge-shaped infarct radiates from the inner cortex to the capsular surface.

Comment: Infarction of the adrenal gland may be associated with local tissue or vascular damage, hypercoagulation, or any other cause of thrombosis. Thus, sporadic infarction of the adrenal gland may occur as a background lesion. Adrenal infarction may be focal or multifocal, and acute or chronic. Acute adrenal infarction results in coagulative necrosis in a characteristic wedge-shaped lesion (Figure 1, Figure 2) and may be associated with variable amounts of hemorrhage. This lesion progresses to tissue collapse, atrophy, and replacement by fibrosis in chronic stages; mineralization or pigmentation may also be present. Multifocal or diffuse infarction of the adrenal gland may indicate a systemic vasculopathy, generalized inflammation, or sepsis.

Recommendation: Infarcts should be diagnosed as infarcts rather than diagnosing the individual components (e.g., necrosis, inflammation, fibrosis). They should be graded according to the extent of adrenal gland involvement. In the pathology narrative, infarcts should be designated as either acute or chronic, and if possible, the cause of the infarct should be identified.



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References:

National Toxicology Program. 1999. NTP TR-488 Toxicology and Carcinogenesis Studies of 60-Hz Magnetic Fields In F344/N Rats and B6C3F1 Mice (Whole-Body Exposure Studies). NTP, Research Triangle Park, NC.

Abstract: <http://ntp.niehs.nih.gov/go/10166>

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