

NTP Nonneoplastic Lesion Atlas

Kidney, Renal Tubule – Hyperplasia, Oncocytic

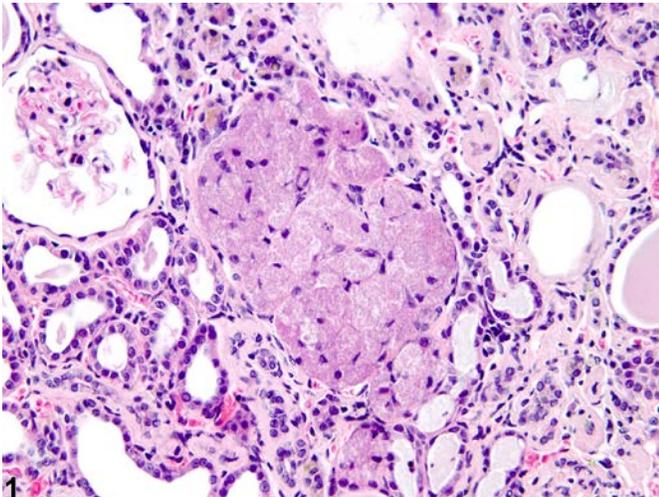


Figure Legend: **Figure 1** Kidney, Renal tubule - Hyperplasia, Oncocytic in a male F344/N rat from a chronic study. Oncocytic hyperplasia represents an increased number of tubule epithelial cells characterized by cytoplasmic enlargement due to the presence of lightly staining, finely granular cytoplasm and centralized nuclei (oncocytes).

Comment: Oncocytic hyperplasia is characterized by tubule cells having lightly staining and finely granular cytoplasm with centralized nuclei. Oncocytic hyperplasia is a rare lesion in the rat and mouse (Figure 1) and reportedly originates in the collecting tubule. Ultrastructurally, oncocytes are composed of atypical mitochondria. Oncocytic hyperplasia is difficult to separate from oncocytoma and should be scored separately from other hyperplastic lesions of the renal tubule.

Recommendation: Oncocytic hyperplasia should be diagnosed and given a severity grade.

Reference:

Frazier KS, Seely JC, Hard GC, Betton G, Burnett R, Nakatsuji S, Nishikawa A, Durchfeld-Meyer B, Bube A. 2012. Proliferative and non-proliferative lesions in the rat and mouse urinary system. *Toxicol Pathol* 40:14S-86S.

Abstract: <http://www.ncbi.nlm.nih.gov/pubmed/22637735>



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