



NTP Nonneoplastic Lesion Atlas

Kidney, Papilla, Epithelium – Hyperplasia

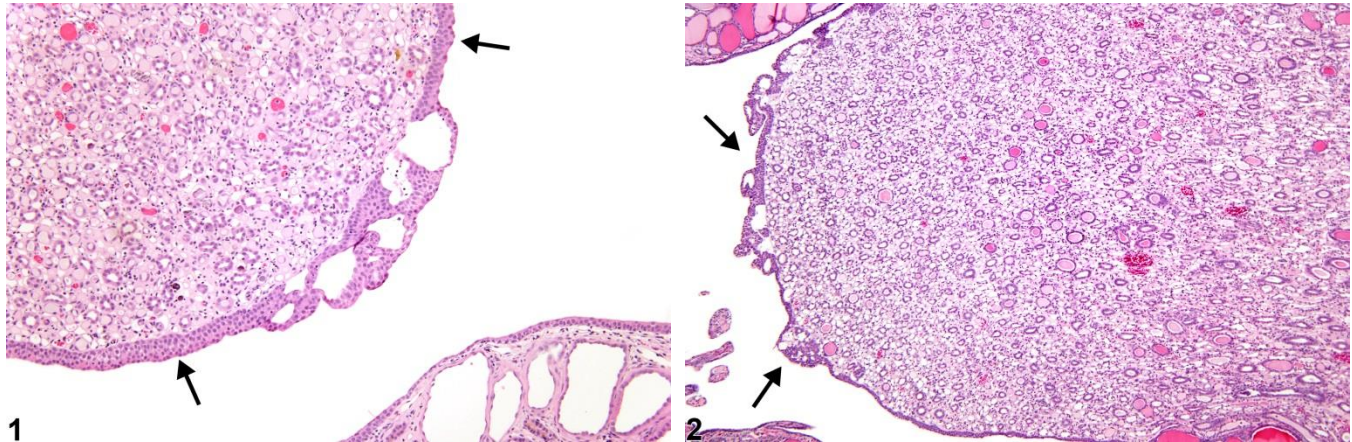


Figure Legend: **Figure 1** Kidney, Papilla, Epithelium - Hyperplasia in a male F344/N rat from a chronic study. The epithelium is thickened (arrows), and there are large clear spaces within the hyperplastic epithelium. **Figure 2** Kidney, Papilla, Epithelium - Hyperplasia in a male F344/N rat from a chronic study. A small focus of hyperplastic surface epithelial cells lines the renal papilla (arrows).

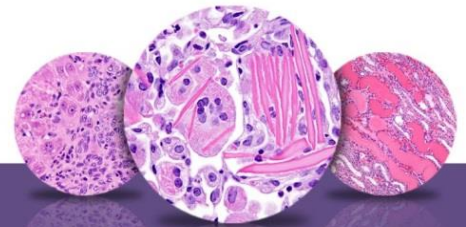
Comment: Hyperplasia of the surface epithelium of the renal papilla can range from thickening of the epithelium (Figure 1, arrows) to variably sized outgrowths of the epithelium with clear spaces amid the cells (Figure 2). Sometimes, these spaces contain eosinophilic material or cells. This lesion is commonly observed with advanced chronic progressive nephropathy (see Kidney - Nephropathy, Chronic Progressive).

Recommendation: Hyperplasia of the renal papillary epithelium should be diagnosed and given a severity grade whenever present.

References:

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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References:

McInnes EF. 2012. Wistar and Sprague-Dawley rats. In: Background Lesions in Laboratory Animals: A Color Atlas. Saunders Elsevier, Edinburg, 29.

Abstract: <http://www.sciencedirect.com/science/book/9780702035197>

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