



NTP Nonneoplastic Lesion Atlas

Kidney, Urothelium – Hyperplasia

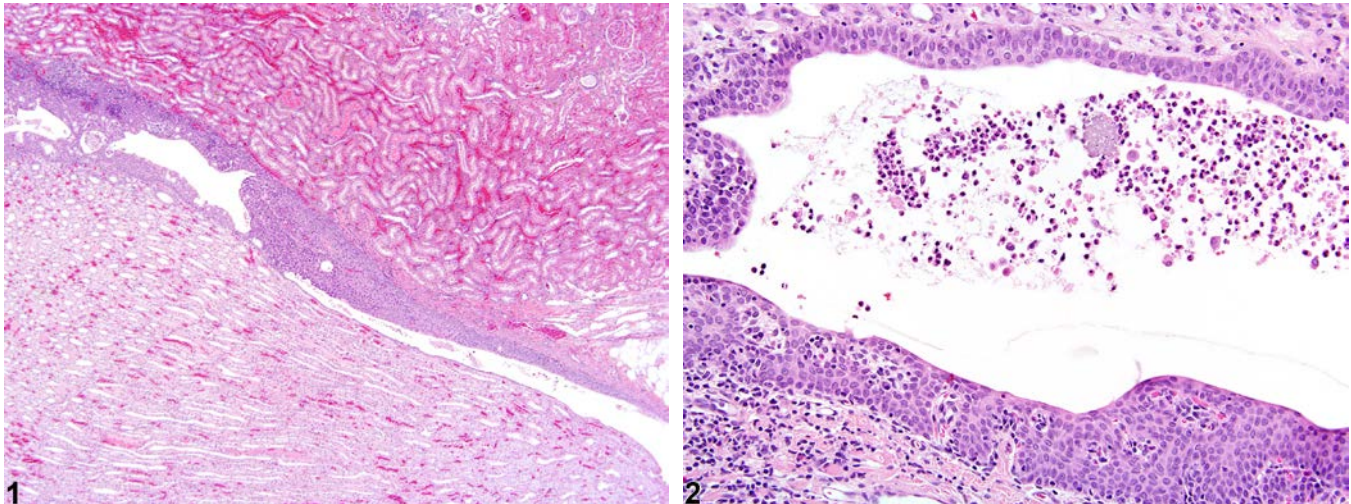


Figure Legend: **Figure 1** Kidney, Urothelium - Hyperplasia in a male F344/N rat from a chronic study. A focus of urothelial hyperplasia is present in the renal pelvis adjacent to the renal papilla. **Figure 2** Kidney, Urothelium - Hyperplasia in a female F344/N rat from a chronic study. Urothelial hyperplasia in the renal pelvis is associated with inflammation.

Comment: Urothelial hyperplasia in the renal pelvis (opposite the renal papilla or in the renal fornices; Figure 1) may be observed as a chemically induced lesion or as a regenerative lesion associated with inflammation (Figure 2) or secondary to an injury to the urothelium. Hyperplastic foci can be focal, multifocal, or diffuse.

Recommendation: Urothelial hyperplasia should be diagnosed and given a severity grade. In areas of inflammation or with the presence of calculi, the pathologist should use his or her judgment in deciding whether secondary urothelial hyperplasia is prominent enough to warrant a separate diagnosis.

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.

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