





Kidney – Glomerulosclerosis



Figure Legend: Figure 1 Kidney - Glomerulosclerosis in a male Wistar Han rat from a chronic study. Several glomeruli (arrows) associated with chronic progressive nephropathy have an increase in eosinophilic matrix and contraction of the glomerular tuft. **Figure 2** Kidney - Glomerulosclerosis in a male Wistar Han rat from a chronic study. Affected glomeruli often have adhesions (arrow) between the glomerular tuft and Bowman's capsule.

Comment: Glomerulosclerosis is a consequence of chronic degenerative changes in the glomerulus and is rarely observed as a primary lesion in NTP studies. Characteristic features include shrinkage and contraction of the glomerular tuft and replacement of the mesangium by fibrosis (Figure 1 and Figure 2). The presence of amyloid deposits must be ruled out because of similar morphologic features. Glomerulosclerosis may be focal, segmental, or global.

Recommendation: Primary glomerulosclerosis should be diagnosed and given a severity grade. When a component of the spectrum of changes associated with chronic progressive nephropathy or part of a secondary response to some other primary renal disease, glomerulosclerosis should not be diagnosed separately but should be described in the pathology narrative.



NTP Nonneoplastic Lesion Atlas



Kidney – Glomerulosclerosis

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

Authors:

John Curtis Seely, DVM, DACVP Senior Pathologist Experimental Pathology Laboratories, Inc. Research Triangle Park, NC

Amy Brix, DVM, PhD, DACVP Senior Pathologist Experimental Pathology Laboratories, Inc. Research Triangle Park, NC