

### Case 7 (S03-2244.6)

### Points

**Species:** Cat  
**Organ:** Kidney

**Description:**

Most glomerula have thickened mesangium due to accumulation of highly eosinophilic amorphous extracellular material, without cellular components (interpreted as amyloid). Some glomeruli are shrunken (sclerotic) and the glomerular tufts/loops are adhered to the thickened Bowmann's capsule (synechie).

The amyloid is distributed segmentally to diffusely (global) in the glomeruli. Thickened Bowmann's capsules are visible in most (generalized) glomeruli. Amyloid is also visible multifocally in the interstitium and around tubuli. Tubuli are often dilated, show sometimes thickened basement membranes and have a homogenous, eosinophilic fluid in some lumina (slight cast formation). In certain vessels, mostly arteries, multifocally eosinophilic amorphous material can also be seen (amyloid deposition).

Additionally, multifocally inflammatory cells composed of moderate amounts of lymphocytes and plasma cells as well as moderate increase of fibrous tissue (interstitial fibrosis) is visible in the interstitium.

Only seldom blueish granular depositions (concrements) are visible in tubuli (mineralization).

**Diagnosis:**

Kidney: Severe, diffuse glomerular (generalized, global), interstitial and vascular amyloidosis with slight proteinuria

Moderate, multifocal chronic (lymphoplasmacellular) interstitial nephritis with slight interstitial fibrosis

**Other organs possibly involved:**

Liver, spleen

**Special stains:**

Kongo, thioflavin