



# ECVP/ESVP Summer School in Veterinary Pathology



Summer School 2009 – Urinary Tract

## Case 4 (S09-0213)

Points

**Species:** Iguana

**Organ:** Kidney

### Description:

50% of the normal architecture is effaced due to deposition of slit like, optic empty spaces (uric acid cristalls (tophi)), which are arranged in a radiating fashion. The urate tophi are randomly distributed in dilated tubular structures, which are sometimes disrupted (tubulorrhexis) and in the interstitium. The urate cristalls are surrounded sometimes by single macrophages, some heterophils and lymphocytes. Some tophi are mostly mineralized on the edge (dystrophic mineralization). In some tubular lumina concrements are visible and tubular basal membranes of some tubules and vessel walls show blueish granular depositions (interpreted as metastatic calcifications). Multifocally macrophages with intracytoplasmic yellow pigment (haematoidin) are present and randomly the interstitium shows moderately increased fibrous tissue (fibrosis).

### Diagnosis:

Severe, multifocal tubular depostion of uric acid cristalls (tophi) with tubulorrexis and dystropic calcification, slight multifocal heterophilic and lymphohistiocytic interstitial nephritis  
Slight multifocal metastatic calcification of tubular basement membranes (Renal (visceral) gout and nephrocalcinosis)

### Pathogenesis:

renal insufficiency, dehydration, too much dietary protein, excess protein catabolism, urolithiasis