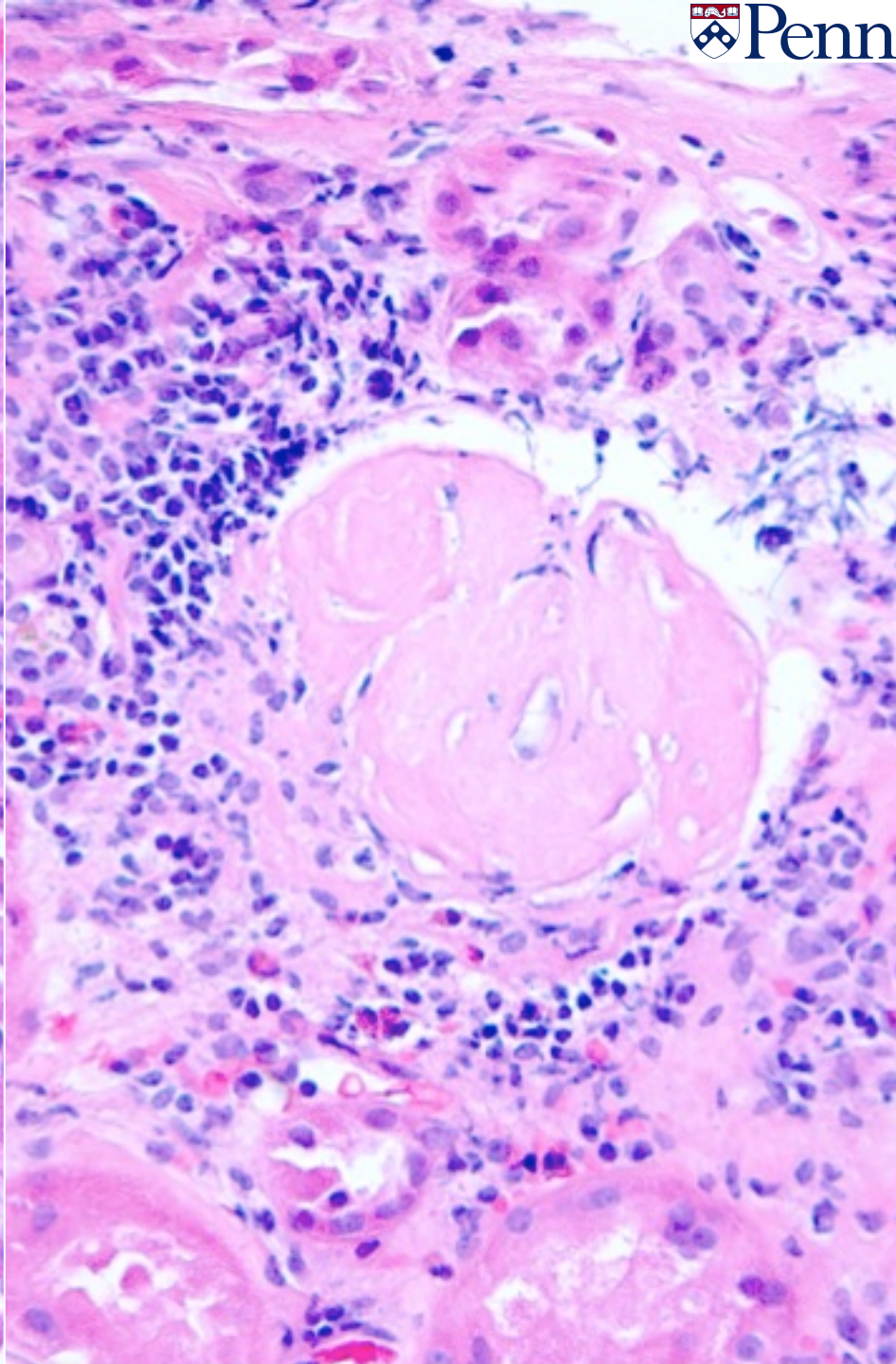
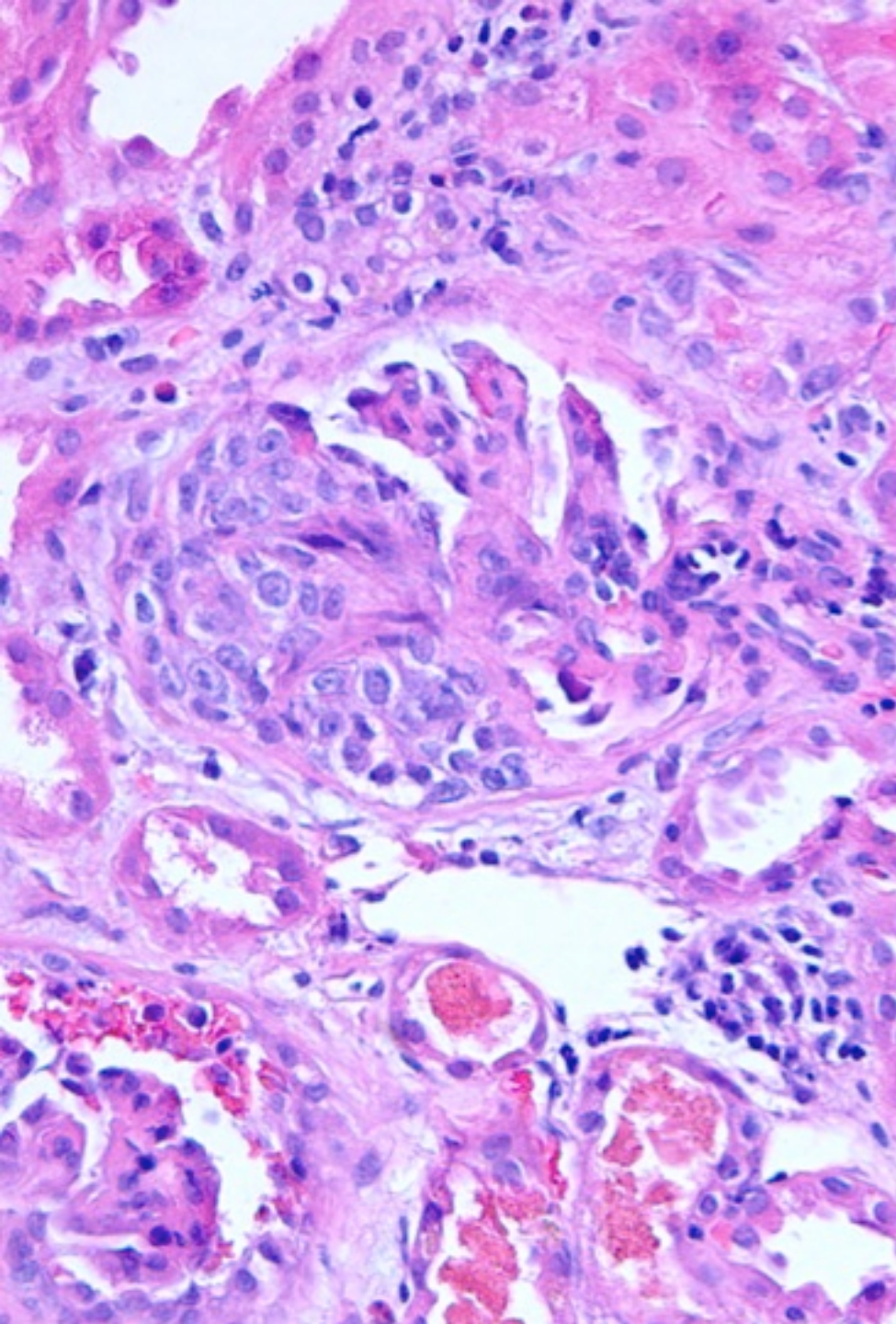




## **GENITOURINARY INTERESTING CASE #1**

63-year-old man with history of IV drug use and current cocaine use  
p/w AKI, left flank pain, hematuria and palpable purpura on his legs.  
IF studies were negative.

Submitted by Sharon Song, MD  
Prepared by Sharon Song, MD



# Pauci-immune crescentic glomerulonephritis (Clinical diagnosis: Levamisole-induced glomerulonephritis)

**Background:** Levamisole is an anti-parasitic veterinary drug that was once used in humans for its immunomodulatory properties but has since been banned by the FDA due to its side effects. The most common complication is hematological (69%), followed by dermatological (41%). It is also commonly used as an adulterant in cocaine as a bulking agent and to give the impression of a higher quality drug.

**Pathogenesis:** ANCA-mediated disease caused by idiosyncratic autoimmune reaction to drug

**Histology:** In kidney, can see necrotizing lesion with fibrin deposition in Bowman's space with associated nuclear debris and cellular crescents. In skin at site of purpuric rash, there are multiple fibrin thrombi in small vessels of the superficial and deep dermis as well as leukocytoclastic vasculitis of small vessels (fibrinoid necrosis of vessel wall, perivascular inflammation, extravasated erythrocytes, karyorrhectic debris). In lung, may see pleural inflammation, alveolar capillaritis and inflammation.

**Ancillary studies:** Silver-PAS stain highlights renal cellular crescents with fibrin. Serology (p-ANCA), IF (pauci-immune pattern)