



ST. VINCENT CHARITY  
MEDICAL CENTER



## A Case of Focal Segmental Glomerulosclerosis With Immune Complexes: Is HIV, Hepatitis B, or Crack the Culprit?

Patil Balozian, Abdul Rahman Al Armashi, Mohammad Haidous, Massiel Cruz-Peralta, Keyvan Ravakhah

St. Vincent Charity Medical Center, Internal Medicine Department, Cleveland, OH

### Introduction:

Human immunodeficiency virus (HIV)-positive individuals are at an increased risk for kidney diseases, including HIV-associated nephropathy (HIVAN), focal segmental glomerulosclerosis (FSGS), HIV immune complex disease of the kidney (HIVICK), and acute tubular necrosis (ATN). Non-modifiable factors such as age and genetics, as well as modifiable factors such as illicit drug use and compliance, define the progression to renal failure.

### Case presentation:

The patient is a 64-year-old African American male with HIV, treated latent syphilis, chronic kidney disease stage 3a, and cocaine use disorder who presented with shortness of breath, bilateral lower extremities swelling, and fatigue with normal vitals and a physical exam remarkable for bibasilar inspiratory crackles with peripheral edema. Laboratory tests showed creatinine (Cr) of 2.23 mg/dL with a baseline of 1.5 mg/dL, albumin of 1.8, blood natriuretic peptide (BNP) of 667.88, and lipidemia. His urine was remarkable for proteinuria and microalbuminuria in the presence of cocaine. Immunofixation electrophoresis showed a marked increase in IgG and IgM, free lambda, and free kappa/free lambda ratio with HIV viral load of 39,400 copies/ml, absolute CD4 count of 56, and an acute hepatitis B panel. Renal biopsy confirmed HIVAN with FSGS accompanied by collapsing features, HIVICK, and ATN. The patient was subsequently started on highly active antiretroviral therapy (HAART) with prophylactic antibiotics and close monitoring.

### Conclusion:

This case highlights that HIV-positive patients are at an increased risk of developing complex focal glomerular, immune, and tubular kidney pathologies, especially in the setting of acute infections, drugs, and non-compliance. HIVAN and HIVICK can coexist in some cases, mostly in the context of patients being off HAART with low CD4 counts and high viral loads.

