

7th International Workshop on Adverse Drug Reactions and Lipodystrophy in HIV



13–16 November 2005, Dublin, Ireland

HIV and the kidney

P Klotman

The Mount Sinai Medical Center, New York, NY, USA

Antiviral Therapy 2005; 10:L3 (abstract no. P5)

Renal disease is increasingly prevalent in the HIV-infected patient population. Renal failure may complicate 10–20% of admissions in seropositive patients and renal disease is the fourth-leading cause of death in AIDS patients. HIV-associated nephropathy (HIVAN) is the most common cause of renal failure in HIV-seropositive African Americans and Blacks. In the US, HIVAN has become the third-leading cause of end-stage renal disease in African Americans over the age of 20. While the introduction of highly active antiretroviral therapy (HAART) has decreased both the mortality and infectious complications of HIV infection, the incidence of HIVAN has plateaued, not decreased, and is increasing again.

HIVAN is diagnosed by renal biopsy in a seropositive patient with proteinuria. The histopathological findings include focal segmental glomerulosclerosis of the collapsing variant combined with microcystic tubule dilatation. Typical features of HIVAN include renal enlargement and echogenicity by ultrasound analysis. Usually there is mild to moderate tubulointerstitial inflammation, interstitial oedema, and fibrosis as well.

HIVAN is caused by renal epithelial infection by HIV-1 in a susceptible host. Increasing evidence demonstrates the kidney to be a previously unrecognized reservoir that supports HIV-1 replication and tissue-specific evolutionary divergence. The racial predilection of this disease suggests important genetic factors for susceptibility. Furthermore, patients with HIVAN are 5.4 times more likely to have a relative with renal failure. In susceptible individuals, HIV infection induces renal epithelial proliferation and apoptosis, the hallmarks of the disease. While HIVAN is not currently considered to be an AIDS-defining condition, patients with HIVAN should be treated with HAART. In some

instances, HAART has completely reversed the disease process, although it does not rid the kidney of virus.

The increasing prevalence of renal disease in HIV-infected patients has placed pressure on treating physicians to remain attentive to potential toxicity of drugs excreted by the kidneys or with known nephrotoxicity. Current HAART regimens include several antivirals excreted by the kidneys, which may be associated with nephrotoxicity. Recognizing those complications that are due to drugs versus those that represent other renal complications is a challenging but not insurmountable task that we all face in managing the HIV epidemic effectively.



[Download PDF of this abstract.](#)

051113
P5

Copyright © 2005 - [International Medical Press Ltd.](#) Reproduction of this abstract (other than one copy for personal reference) must be cleared through the International Medical Press Ltd. 2-4 Idol Lane, London EC3R 5DD UK.