

ABSTRACT

This study was designed to screen antiretroviral therapy (ART)-naïve human immunodeficiency virus (HIV) infected patients for proteinuria, using urine dipsticks, at the HIV outpatient clinic at Johannesburg Hospital in an attempt to detect and treat early renal disease. In those with persistent proteinuria, a marker of kidney disease, renal biopsy was performed, ART with and without angiotensin-converting enzyme inhibitors (ACE-I) was initiated and patients were followed up for immunological and renal responses. After a minimum period of 12 months, a repeat biopsy was performed, where possible, to determine whether the histological lesions had responded to treatment. During urinary screening, proteinuria, leucocyturia and microscopic haematuria were common. Sterile leucocyturia may be associated with co-morbid sexually transmitted infection or tuberculosis. In the group that underwent renal biopsy with treatment, the renal and immunological response, before and after ART was highly statistically significant. Renal and immunological responses to ART were assessed by reduction in proteinuria with increased GFR, increased CD4 count with reduction in HIV viral load, respectively. On biopsy, HIV-associated immune complex disease was more common than HIVAN, a finding that contradicts international and some local data. Resolution of proteinuria was relatively rapid in comparison to the histological response to treatment, an effect not previously shown. This is the first study of its kind, to the author's knowledge, that prospectively evaluates the effect of ART with/ ACE-I in ART-naïve HIV infected patients with both clinicopathological and histological criteria. It has shown unequivocally, that renal disease, particularly if detected and treated early in HIV infection, is responsive to treatment. These findings suggest screening for early detection and treatment of HIV-associated renal disease should be mandatory in HIV clinics in South Africa.