Supplemental Material Table of Contents

Material and Methods

Patients and renal function evaluation

Identification of patients, demographic clinical and biological data

We included 23 adult patients from 10 nephrology departments (Henri Mondor Hospital (Créteil), Tenon Hospital, Necker Hospital, Georges Pompidou European Hospital, Bichat Hospital, *Association pour l'utilisation du Rein Artificiel* (Paris), Foch Hospital (Suresnes), André Grégoire Hospital (Montreuil), Conception Hospital (Marseille), Huriez Hospital (Lille)) seen between 1998 and 2019. The patients at each hospital were identified on the basis of electronic medical records, including the renal disease and clinical diagnosis databases. For all patients, the demographic data recorded included age, sex, ethnicity and coinfections with hepatitis B virus, hepatitis C virus and human immunodeficiency virus (HIV). For patients with HIV infection, HIV viral load (copies/mL), $CD4^+$ T-lymphocyte counts, and the use of highly active antiretroviral therapy (HAART) were reported. Levels of complement fractions C3, C4 and the total hemolytic activity (CH50) of the serum were determined for all patients. Serum protein electrophoresis and immunological tests, including tests for anti-neutrophil cytoplasm antibodies, anti-nuclear antibodies and anti-DNA antibodies were systematically performed.. High-risk APOL1 genotypes were defined as two risk alleles in any combination (homozygous G1/G1, homozygous G2/G2, or compound heterozygous G1/G2). All patients tested for APOL1 risk alleles gave written informed consent.

Follow-up

Follow-up data included renal function evaluations (estimated glomerular filtration rate (eGFR) or the need for renal replacement therapy and the outcome of underlying glomerular disease, based on proteinuria at the last follow-up visit. Complete remission of nephrotic syndrome was defined as the normalisation of urinary protein-creatinine ratio (uPCR) (< 0.3 g/g), and an albumin concentration >3.0g/dL. Specific treatments for underlying glomerular disease (steroid therapy and/or immunosuppressive agents) were specified for all patients.

Plasmodium infection

The results of parasitaemia levels and species identification confirmed by polymerase chain reaction (PCR) were noted when available. The antimalarial drugs administered and the type of hospitalisation unit to which patients were initially admitted (conventional medicine unit or intensive care unit (ICU)) were recorded for all patients.

Renal biopsy examination and immunohistochemistry study.

Diagnosis of underlying glomerular diseases

Minimal change nephrotic syndrome was diagnosed on the basis of an absence of visible alterations on light microscopy examination, and an absence of immunoglobulin and/or complement deposits in immunofluorescence studies (19). Focal and segmental glomerulosclerosis (FSGS) diagnosis required the presence of segmentally collapsed glomerular capillaries with areas of glomerular scarring associated with focal and segmental granular deposition of IgM and/or C3 within the areas of segmental glomerular sclerosis; all

cases of FSGS were classified according to the Columbia classification (20). The morphological features of collapsing glomerulopathy (including HIV-associated nephropathy (HIVAN) in HIV-infected patients) were segmental and/or global collapse of the glomerular capillary tufts, with overlying epithelial cell hypertrophy and hyperplasia, with or without microcystic tubular dilation and tubulointerstitial lesions (21)

Immunohistochemistry with a monoclonal antibody targeting P. falciparum HRP-2

We used *P. falciparum*-infected red blood cells fixed in ethanol as the positive control, and the primary antibody was omitted as a negative control. We also assessed the specificity of staining on clinically relevant negative controls: two kidney biopsy specimens from patients diagnosed with HIVAN diagnosis in the absence of malaria and two kidney biopsy specimens from patients with acute tubular necrosis (ATN) not related to malaria infection.