Images in Nephrology
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Spontaneous renal CT-scan hyperdensity of an HIV-associated nephropathy

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Case

A 27-year-old African woman was hospitalized because of a nephrotic syndrome associated with renal failure (creatinine clearance: 56 ml/min). She had been given a diagnosis of human immunodeficiency virus (HIV) infection in the previous month, but received no treatment because of an allergic reaction to the antiviral therapy. She complained of general fatigue with recent weight loss. Her blood pressure was 115/65 mmHg. The CD4 count was 7 cells/μl and HIV viral load 300,000 copies/ml. Ultrasonography showed two normal-sized echogenic kidneys. Because of the severe weight loss, an abdominal tomodensitometry without contrast injection was performed (Figure 1). It revealed a spontaneous hyperdensity of both kidneys predominant in the cortical area. Renal histology was consistent with HIV-associated nephropathy (HIVAN) by showing focal segmental glomerulosclerosis and extensive microcystic tubulointerstitial disease. Antiviral therapy was successfully reintroduced. After a 2 month follow-up, nephrotic syndrome was persistent but renal function improved.

Discussion

Our patient had typical clinical features of HIVAN, including proteinuria of nephrotic range without oedema, normal blood pressure and renal failure. The diagnosis was confirmed by renal histology [1]. By ultrasonography, the kidneys of HIVAN are typically enlarged and highly echogenic. Echogenicity has been correlated with the development of microcystic tubular dilatation, rather than with glomerular change [2]. Computerized tomography (CT) scan features have not been enlightened before. A CT-scan without contrast media injection showed a very particular feature with a highly dense renal parenchyma. This aspect should be included in the general features of HIVAN.

Conflict of interest statement. None declared.

References