Images in Infectious Diseases/Imagens em DIP

Secondary amyloidosis associated with tuberculosis in renal biopsy

Amiloidose secundária associada à tuberculose numa biópsia renal

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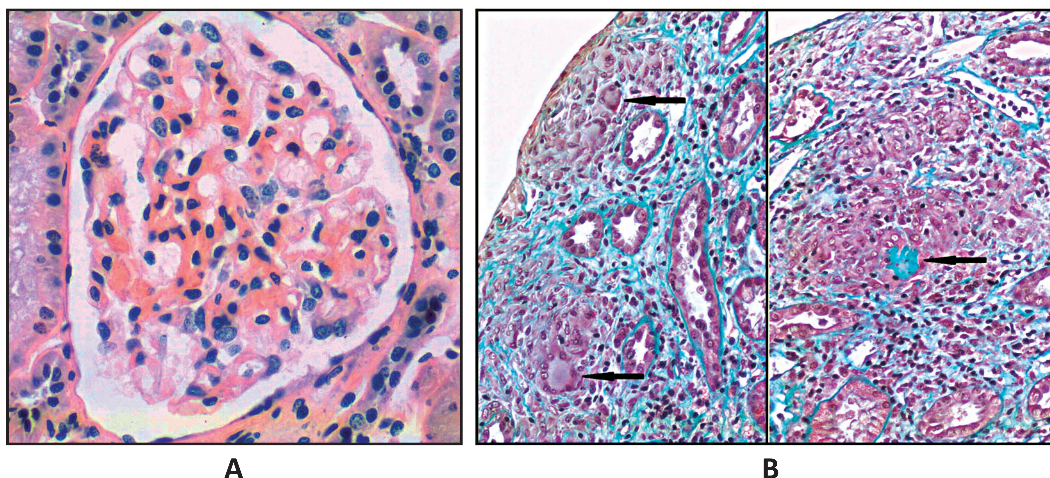

A B

A 46-year-old woman with a history of diabetes, drug addiction, hepatitis C virus (HCV), and human immunodeficiency virus (HIV) was presented to our department with a 4-month history of edema, fever, and cough. Chest radiography showed an opacification in the upper lobe of the left lung, but laboratory tests were negative for tuberculosis (TB). Nevertheless, the treatment for pulmonary TB was started. Serum creatinine and albumin levels were 0.8mg/dL and 2.5g/dL, respectively. The urinary protein excretion was 7.5g/24h. A renal biopsy performed six weeks after beginning the TB treatment showed a mild mesangial expansion of amorphous and acellular pale eosinophilic material. The material had affinity for Congo red stain (**Figure A**) that was lost after exposure to $KMnO4$. The interstitial area shows foci of mixed inflammatory cell infiltrate and epithelioid granulomas with Langhans giant cells and central necrosis (**Figure B**). Probably due to treatment, Ziehl-Neelsen stains were negative. The final diagnosis was secondary amyloidosis and granulomatous interstitial nephritis compatible with tuberculosis. Two years later, the albumin level was 4.2g/24h, serum creatinine was 1.0mg/dL, proteinuria decreased to 1.2g/24h, and all symptoms disappeared.

We report this case to emphasize the importance of renal biopsy in patients with infectious diseases (HCV, HIV, TB) and nephropathy. In addition, this is the first case in which a renal biopsy showed the concomitant diagnosis of TB granulomas and AA amyloidosis deposits.

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