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Pathology Page

Immunoglobulin A nephropathy

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A 30-year-old woman had intermittent hematuria and proteinuria for >10 years. Urinalysis showed occult blood (4+), protein (2+), 30–40 red blood cells/high-power field, and urine total protein 1.2 g/day. Serology showed anti-streptolysin O 37.1 IU/mL, immunoglobulin (Ig)A 737 mg/dL, IgM 94.7 mg/dL, IgG 1230 mg/dL, and IgE 194 U/mL. A renal biopsy was performed and histopathology showed mild to moderate increases in mesangial cells and matrix (Fig. 1). Immunofluorescence staining showed IgA and complement component C3 deposition in the mesangial area (Fig. 1, inset), which was diagnostic of IgA nephropathy. The patient was regularly followed up at our hospital. IgA nephropathy is one of the most common causes of recurrent microscopic or gross hematuria. This condition usually affects children and young adults and begins as an episode of gross hematuria that occurs within 1 or 2 days of a nonspecific upper respiratory tract infection. Typically, the hematuria lasts several days and then subsides, only to recur every few months. Histopathology shows focal or diffuse mesangial cells and matrix proliferation. The characteristic immunofluorescence picture is of mesangial deposition of IgA. Clinically, 30–40% of patients have only microscopic hematuria, with or without proteinuria, and 5–10% develop a typical acute nephritic syndrome, such as our patient. Many patients maintain normal renal function for several decades. Slow progression to chronic renal failure occurs in 25–50% of cases over a period of 20 years.

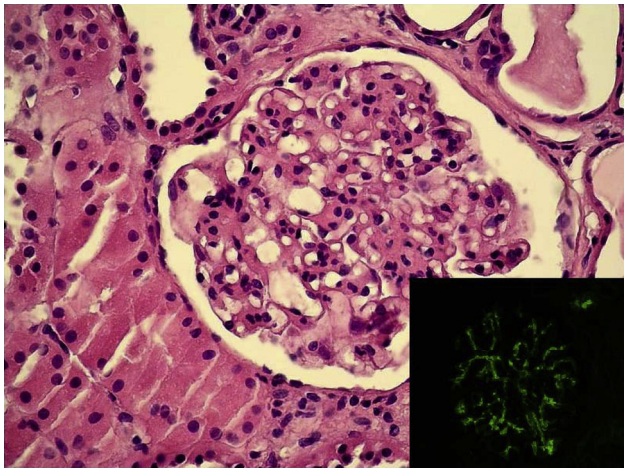

Fig. 1. Histopathology shows moderate proliferation of mesangial cells and matrix (hematoxylin and eosin, 400×). Inset: Immunofluorescence staining shows IgA deposition in the mesangial area (fluorescein isothiocyanate, 400×).

Further reading

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Conflicts of interest: none.

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