NDT Plus (2011) 4: 357–358
doi: 10.1093/ndtplus/sfr077
Advance Access publication 15 July 2011

NDT PLUS
Nephrology Dialysis Transplantation

Images in Nephrology
(Section Editor: G. H. Neild)

Microscopic papillary tumor in a renal needle biopsy specimen for IgA nephropathy

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Keywords: microscopic papillary tumor; renal needle biopsy

Case

A 56-year-old male with known IgA nephropathy was admitted to our facility because of a 12-month episode of increasing proteinuria. The urinalysis was 2+ for protein, negative for occult blood and with hyaline and fatty casts in the sediment. The serum creatinine was 1.07 mg/dL and creatinine clearance was 75.6 mL/min. The serum IgA was 490 mg/dL (normal range: 107–363) and serum C3 was 116 U/mL (normal range: 44–102). An ultrasonographic examination of the abdomen showed a few hypoechoic cysts in the right kidney. We performed renal biopsy for re-evaluation of glomerulonephritis.

The biopsy specimen included 30 glomeruli, some containing global sclerosis (11/30) and segmental sclerosis or adhesion (4/30). Three non-sclerosed glomeruli showed mild mesangial proliferation and these glomerular lesions. Immunofluorescence studies revealed granular depositions of IgA in the mesangium. Interstitial fibrosis and atrophy of tubules were found in ~10% of the interstitium were compatible with IgA nephropathy. Compared with the first biopsy in 2000, glomerular and interstitial lesion remained unchanged, and no active glomerular lesion has been developed. Pathologic diagnosis was IgA nephropathy in chronic phase. Light microscopic examinations also showed a papillary features (diameter: 500 μm) composed of cuboidal epithelial cells without distinct cytological atypia (Figures 1 and 2). This lesion was not accompanied with hemorrhage or necrosis.

Discussion

Microscopic renal cell adenoma and carcinoma are often found incidentally in surgical or autopsy specimens, but there are few previous reports of them in needle biopsy specimens. Houston and other previous observations suggest that the risk of malignancy and high-grade tumors increases with tumor size [1]. At this point, imaging findings on computed tomography and magnetic resonance imaging revealed bilateral kidney morphology to be normal. Needle biopsy contains most of the tumor with clear demarcation and the size was supposed to be <10 mm. No apparent invasive features of this lesion are noted. We need

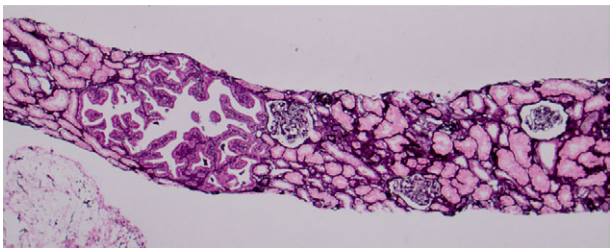

Fig. 1. Light microscopy (periodic acid–methenamine silver staining, original magnification ×40) showed papillary tumor (left side of core, diameter: 500 μm).

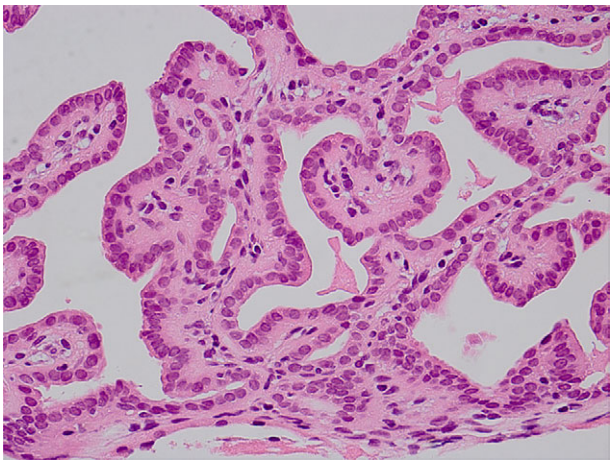

Fig. 2. The tumor was composed of high columnar epithelial cells with mild cytological atypia (hematoxylin and eosin staining, original magnification ×400).

to follow up this microscopic lesion with an imaging test. We suggest that incidental papillary tumor could be seen in the biopsy samples and physician should be aware of this tumor and it is not a compensatory tubular hypertrophy.

Conflict of interest statement. None declared.

References

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Received for publication: 13.5.11; Accepted in revised form: 27.5.11