Case 1

IgA nephropathy with prominent capillary wall electron-dense deposit

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<Background>

IgA nephropathy is the most common form of primary glomerulonephritis characterized by slow progression, mesangial IgA deposit. Prominent capillary wall electron-dense deposit in IgA nephropathy is a rare finding and may be associated with superimposed MGN or MPGN. We report a case of IgA nephropathy with prominent capillary wall electron-dense deposit and better prognosis.

<Case>

In Feb. 2002, a 10-year-old boy was admitted in the department of Pediatrics, Kyungpook National University Hospital because of persistent proteinuria and microscopic hematuria for 2 years. These findings were initially showed by school mass screening in May 2000. Physical examination revealed no edema and ascites. In laboratory findings, all blood chemistries were within normal range and urine protein during 24 hours was 520 mg/m^2. Renal biopsy was performed. Light microscopic examination of the renal specimen revealed diffuse mesangial widening, cellular proliferation and lobulation. Immunofluorescent microscopic examination showed IgA(2+), IgG(2+), C3(2+), Fibrinogen(2+) deposit in mesangium only and electron microscopic examination showed electron-dense deposit in subendothelial and subepithelial areas(more dominant in subepithelial area) as well as mesangium. Foot process and glomerular basement membrane were intact. Based on these findings, we diagnosed this boy as IgA

nephropathy, Haas' subclass IV, and treated with enalapril and dipyridamole. 2 months after the initiation of medication, dipstick test showed negative proteinuria, and 2 years later, hematuria as well as proteinuria was disappeared. In Feb. 2007, he has normal urinalysis and renal function.

<Point of discussion>

1. Which is the diagnosis of this boy ?
    1) IgA nephropathy due to mesangial IgA(2+) deposit on IF
    2) MGN superimposed on IgA nephropathy due to prominent subepithelial deposit on EM
    3) IgA nephropathy with MPGN or MPGN only due to positive lobulation on LM and subendothelial deposit on EM
2. Which is the treatment of choice?
    1) Tx. for IgA nephropathy : Treat with ACEI or ARB. If he has nephroic range proteinuria, impaired renal function, consider prednisolone and azathioprine.
    2) Tx. for MGN : No treatment or treat with only ACEI or ARB.

        Tx. for MPGN : Treat with long-term oral prednisolone.