KSN 2018
Seoul, Korea · May 17 - 20

Abstract Type : Poster
Presentation No. : PGN 016

A case of a 14-year-old girl with late diagnosed membranoproliferative glomerulonephritis

Euna Kim, Kyo Sun Kim, Kyung Min Kim
Department of Pediatrics, Konkuk University Medical Center, Korea, Republic of

Backgrounds: Membranoproliferative glomerulonephritis (MPGN) is an uncommon cause of chronic nephritis that occurs primarily in children and young adults. MPGN is pattern of glomerular injury often associated with subendothelial and/or mesangial deposition of pathogenic immune complexes. Several reports indicate that extended courses of alternate-day prednisone provide benefit. Some patients treated with steroids enter a complete clinical remission, but many have ongoing disease.

Case: A 14-year-old girl was referred to our hospital for hematuria and proteinuria. At that time, laboratory test showed that the serum Hb 12.4 g/dL; Hct 36.2 %; total protein 6.7 g/dL; albumin 3.7 g/dl; total cholesterol 169 mg/dL; blood urine nitrogen (BUN) 10.2 mg/dL; creatinine (Cr) 0.47 mg/dL, and serologic test including complement 3 (C3) level was no specific finding. Urinalysis revealed protein 2+, blood 1+, and 24hr urine protein was 53.1 mg/m^2/hr. The estimated glomerular filtration rate (eGFR) was 191 mL/min/1.73m^2. Renal biopsy was performed and revealed that the glomeruli are of moderately hypercellular involving mesangial cells and mesangial matrix is increased. Electron microscopy (EM) showed the subendothelial and mesangial deposits with a few subepithelial deposits. Therefore, histologic diagnosis was immune-mediated nephropathy. Steroid therapy was started and maintained for 1 year. There were no accompanying symptoms but proteinuria persisted. In an additional serologic test, C3 level slightly decreased from 109.0 to 85.9 mg/dL. In a second renal biopsy, mesangial interposition is focally seen, forming double contours. EM showed that the glomerular basement membrane is irregularly thickened having partly irregular contours. Finally, histologic diagnosis is membranoproliferative glomerulonephritis.