

Epstein-Barr 바이러스 감염과 동반된 막성 신염 1예

고려대학교 의과대학 소아과¹, 해부병리과²

이은희¹ · 임형은¹ · 유기환¹ · 원남희² · 홍영숙¹ · 이주원¹

A Case of Membranous Nephropathy Associated with Epstein-Barr Virus Infection in a Child

Eun Hee Lee¹, Hyung Eun Yim¹, Kee Hwan Yoo¹, Nam Hee Won², Young Sook Hong¹, Joo Won Lee¹

Department of Pediatrics College of Medicine Korea University¹, Department of Pathology²

Introduction : Infection of Epstein-Barr virus (EBV) give rises to a broad spectrum of clinical manifestations in children. Although renal involvement is rare, diverse renal manifestations are known from hematuria to acute renal failure. Secondary membranous glomerulonephritis (MGN) associated with systemic EBV infection is an uncommon and only two cases have been reported. We report a case of MGN associated with EBV infection in a child.

Case : An 8-year-old girl had been followed up for microscopic hematuria and mild proteinuria during 5 months. On this admission, she complained of sore throat and a recent aggravation of snoring. Tonsillar hypertrophy was observed and there were multiple palpable cervical lymph nodes. EBV study showed positive evidence of recent infection; VCA IgM, VCA IgG were positive, and EBNA was negative. Tonsillar biopsy showed EBV-associated lymphoproliferative disorder. In situ hybridization from tonsillar tissue was EBV mRNA positive. At that time, her proteinuria was aggravated, showing increased urine protein/creatinine ratio from 0.4 to 2.42. Renal biopsy revealed the findings of MGN, which were characterized by thickened capillary walls with segmental epimembranous spikes on light microscopy and subepithelial, mesangial, and subendothelial electron dense deposits on electron microscopy. Immunofluorescence study showed that IgG, C1q, kappa and lambda chains were in capillary walls in a granular pattern and diffuse and segmental distribution. Proteinuria has been improved after steroid administration.

Conclusion : Among the EBV associated nephropathy, tubulointerstitial nephritis is more common than MGN. EBV associated nephropathy also occurs usually in immune compromised patients. This case shows that EBV viremia is associated with renal histological changes featuring of MGN.