P-18

미세변화형 신증후군 환자에서 전자 고밀도 침착의 의미

영남대학교병원 소아청소년과[1], 병리과[2]

강석정[1], 김명욱[1], 이상수[1], 김세윤[1], 박용훈[1], 김용진[2]

Significance of Electron Dense Deposits in Patients with Minimal Change Nephrotic Syndrome

Seok Jeoung Kang[1], Myoung Uk Kim[1], Sang Su Lee[1]
Sae Yoon Kim[1], Yong Hoon Park[1], Yong Jin Kim[2]

Department of Pediatrics[1] and Pathology[2], Yeungnam University Hospital

Purpose: Minimal change nephrotic syndrome (MCNS) is characterized by no obvious abnormalities on light microscopy; the immunofluorescence microscopy findings are typically negative, and electron microscopy (EM) simply reveals effacement of the epithelial cell foot processes. There are rare reports of electron-dense deposits (EDD) on EM in patients with MCNS, thus we investigated their clinical significance of EDD in MCNS.
Methods: From February of 2000 to April of 2010, patients who were diagnosed with MCNS at the department of pathology, Yeungnam University medical center were enrolled in a retrospective study involving a chart review. Clinical characteristics, laboratory results, response to treatment were analysed.
Results: Eight males and three females with EDD were compared with 14 males and six females in the control group. No statistical differences in clinical characteristics, most of laboratory results, and response to treatment between the two groups were found. The immunoglobulin M (IgM) level was 84.39+36.62 mg/dL in the EDD group, and 180.45+107.19 mg/dL in the controls (p=0.014). However, there was no evidence of IgM nephropathy because of only three of the controls showed at trace of IgM at renal biopsy. Microscopic hematuria was found in four patients in the EDD group and nine controls, but glycosuria was not. The number of relapses per year was higher in the EDD group compared with the controls (p=0.023). Progression to steroid-resistent nephrotic syndrome occurred in five of the EDD group and eight controls.
Conclusion: However, whatever the nature of these electron deposits were, our results indicated that those would not be causing worse outcomes of minimal change nephrotic syndrome. Therefore, larger series of researches are necessary to determine the immunologic and prognostic significance of EDD.

Key Words: 미세변화형신증후군, 전자고밀도침착
Minimal change nephrotic syndrome, Electron dense deposits