S-D3

IgA 신병증환자에서 신기능을 예측할 수 있는 저보체혈증과 사구체 간질에서 C3침착의 의의

연세대학교 의과대학 내과학교실

도화미, 이미정, 김승준, 김찬호, 고광일, 김형래, 한재현
구향모, 신동호, 오형중, 유태현, 강신욱, 최규헌, 한승혁

Hypocomplementemia and Mesangial C3 Deposition Predict Renal Outcome in Patients with IgA Nephropathy

Fa Mee Doh, Mi Jung Lee, Seung Jun Kim, Chan Ho Kim, Kwang Il Ko
Hyeong Rae Kim, Jae Hyun Han, Hyang Mo Koo, Dong Ho Shin
Hyung Jung Oh, Tae-Hyun Yoo, Shin-Wook Kang, Kyu Hun Choi, Seung Hyeok Han

Yonsei University College of Medicine, Department of Internal Medicine

Background: Mesangial C3 deposition is frequently observed in patients with IgA nephropathy (IgAN). However, the role of complement in the pathogenesis or progression of IgAN is uncertain. Therefore, we undertook an observational cohort study to identify the clinical implications of hypocomplementemia and mesangial C3 deposition and to investigate their utility as predictors of renal outcomes in patients with IgAN.

Methods: A total of 343 patients with biopsy-proven IgAN were enrolled between January 2000 and December 2008. Hypocomplementemia was defined as C3 levels <90 mg/dl. The primary outcome was a doubling of the baseline serum creatinine.

Results: Of the patients, there were 66 patients (19.2%) with hypocomplementemia. During a mean follow-up of 53.7±30.1 months, 12 patients (18.2%) with hypocomplementemia reached the primary outcome compared with 17 patients (6.1%) with normal C3 levels [Hazard ratio (HR), 3.59; 95% confidence interval (CI), 1.33-10.36; p=0.018]. In a multivariable model in which serum C3 levels were treated as a continuous variable, hypocomplementemia significantly predicted renal outcome (per 1 mg/dl increase of C3; HR, 0.95; 95% CI, 0.92-0.99; p=0.011). The risk of reaching the primary outcome was significantly higher in patients with mesangial C3 deposition 2+ to 3+ than in patients without deposition (HR 9.37; 95% CI, 1.10-80.26; p=0.04).

Conclusions: This study showed that hypocomplementemia and mesangial C3 deposition were independent risk factors for progression, suggesting that complement activation may play a pathogenic role in patients with IgAN.

Key Words: 저보체혈증, C3 침착, IgA 신병증
Hypocomplementemia, C3 deposition, IgA nephropathy