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IgA 신증 환자에서 Oxford 분류체계와 Haas 분류체계 사이의 신생존 예측력 비교

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Comparison of Predictability of Renal Outcome between the Oxford Classification and the Haas Classification in Patients with IgA Nephropathy

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Background: Pathologic features can provide valuable information to determine prognosis of Immunoglobulin A nephropathy (IgAN). Recently, the Oxford classification, a new classification of IgAN, has been proposed and gained worldwide acceptance. However, it is uncertain whether the Oxford classification can predict renal outcome better than previous ones.

Methods: We conducted a retrospective cohort study to compare predictability of renal outcome between the Haas classification and the Oxford classification in 500 patients biopsy-proven IgAN between January 2001 and December 2010 from two medical centers in Korea. Primary outcome was a doubling of the baseline serum concentrations (D-SCr).

Results: During a mean follow-up of 68 months, 52 (10.4%) and 35 (7.0%) developed D-SCr and ESRD, respectively. There were graded increases in the development of D-SCr as the classes by the Haas system were higher; 2 (2.5%) in class I, 1 (1.1%) in class II, 16 (8.5%) in class III, 20 (17.1%) in class IV, and 13 (50.0%) in class V. In addition, the primary endpoint of D-SCr occurred more in patients with high score of each MEST lesion of the Oxford classification than those without such components. In a multivariable Cox regression analysis adjusted for age, gender, blood pressure, proteinuria, and eGFR, Haas class V [hazard ratio (HR), 12.19; 95% confidence interval (CI) 2.48 to 59.95; p=0.002] was independently associated with an increased risk of reaching D-SCr. In addition, risk of reaching the primary endpoint was significantly higher in T1 (HR, 10.10; 95% CI, 2.87 to 35.57; p<0.001) and T2 (HR, 23.66; 95% CI, 5.97 to 93.75; p<0.001) lesions by the Oxford system. Harrell's C index of each multivariable model with the Haas and the Oxford classification was 0.865 (p=0.017) and 0.870 (p=0.007), respectively, which was significantly higher than that of model with clinical factors only (c-statistic=0.819). However, there was no difference in c-statistics between the two models with the Haas and the Oxford classifications (p=0.401).

Conclusions: This study suggests that both pathologic classifications are comparable in predicting of progression of IgAN. Further studies are required to delineate relationship between pathologic features and treatment responsiveness in patients with IgAN.

Key Words: IgA 신증, Oxford 분류체계, Haas 분류체계
IgA nephropathy, The Oxford classification, Haas classificatio