

Abstract Submission No.: A-0272**The impact of anemia on the prognosis of IgA nephropathy**

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Objectives : Immunoglobulin A Nephropathy (IgAN), the most common glomerulonephritis worldwide, has potential predictors for progression, including persistent proteinuria. However, the effect of hemoglobin (Hb) levels on the progression of IgAN is rarely reported. This study aims to evaluate the impact of Hb levels on the prognosis of IgAN and identify associated factors for anemia in IgAN patients.

Methods : Herein, the data of 855 patients diagnosed with IgAN at Kyungpook National University Hospital between January 2002 and December 2021 was analyzed. Clinical parameters and pathological findings according to the Oxford classification were obtained at the time of the renal biopsy. Risk factors for anemia were analyzed using logistic regression analysis, and the impact of anemia on IgAN progression was evaluated using the Kaplan-Meier survival curve with log-rank test and Cox proportional hazard analysis.

Results : A higher risk of anemia was associated with lower serum albumin levels and lower estimated glomerular filtration rates in patients with IgAN. Patients with more severe interstitial fibrosis and tubular atrophy were more likely to develop anemia. The Kaplan-Meier survival curve revealed that patients with anemia had worse renal survival than those without anemia. The multivariable Cox analysis showed that anemia was associated with the progression to end-stage kidney disease (ESKD) (hazard ratio 2.86, confidence interval 1.58–5.17, $p = 0.001$). In a sex-specific analysis, only the female sex showed a significant and higher association between anemia and the risk of ESKD (hazard ratio 4.07, confidence interval 1.53–10.8, $p = 0.005$).

Conclusions : A low Hb level at the time of biopsy, even if the decline was mild and subclinical, was an independent risk factor for the development of ESKD in patients with IgAN. The association between anemia and progression to ESKD was more prominent in women. It is necessary to monitor Hb levels and control anemia after the diagnosis of IgAN.