

WCN23-0401 PREDICTING HIGH-RISK PATIENTS USING THE INTERNATIONAL IGA NEPHROPATHY RISK PREDICTION TOOL: A PRELIMINARY SINGLE-CENTRE ANALYSIS

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Introduction

The International IgA Nephropathy Risk Prediction Tool (IgAN-RPT) has been utilized to predict renal progression up to 5 or 7 years after biopsy via histological and clinical risk factors. We reported the preliminary analysis of the renal outcome of IgAN patients in relation to their predicted risk based on the IgAN-RPT at biopsy.

Methods

We included 29 biopsy-proven adult IgAN patients diagnosed between 2010 and 2017. The IgAN-RPT predicted risk score at 5 years was calculated for each patient. The primary outcome was the risk of developing a 50% decline in the estimated glomerular filtration rate (eGFR) or end stage renal disease (ESRD) at 5 years after biopsy. Independent Student T-test and chi-square analysis were used to compare the clinical data between groups, while Kaplan-Meier survival analysis was done to compare the predicted and observed outcomes within risk groups using SPSS 26 (2020; IBM Corp., Armonk, NY, USA).

Results

Our cohort consisted of 13 Chinese, 12 Malay and 4 Indian patients with a mean eGFR of 68.2 (±5.7) at biopsy. The median 5-year IgAN-RPT risk score was 13.12% (IQR: 6.02 to 28.00). 20.7% (n=6) reached the primary outcome. Statistically significant; lower mean serum albumin level [30.5 ± 3.3 versus 38.0 ± 6.9, t=2.571 (27), p= 0.016], higher proportion of not using RAS blocker [100.0% versus 11.5%, $\chi^2 = 10.9$ (2), p=0.004] and higher proportion of using immunosuppression at biopsy [36.4% versus 5.9%, $\chi^2 = 7.54$ (2), p=0.023] were noted among these patients. At this preliminary point, none of the other clinical data was significant, thus no further multivariate analyses were performed. To compare the predicted and observed outcomes within the risk group, a cut-off point of 30% for the predicted risk was determined by calculating the Youden Index of a receiving operating curve plotted between the predicted outcome versus observed outcome at 5 years. Results showed well-separated curves between the two risk groups, indicating a good discriminant ability of the tool among our patients.

Conclusions

Our study demonstrated the median 5-year 1gAN-RPT risk score among our patients was 13.12% with 20.7% of them reaching the primary outcome. Moreover, a cut-off of 30% IgAN-RPT predicted score could discriminate between high-risk versus low-risk patients to develop ESRD or a 50% decline in eGFR in this population.

No conflict of interest

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