

## Asians with IgA Nephropathy Have an Increased Risk of Progression to End-Stage Renal Disease

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**BACKGROUND:** IgA nephropathy (IgAN) is the most common cause of glomerulonephritis (GN) worldwide, however it accounts for a far higher proportion of end-stage renal disease (ESRD) in Asia compared to North America. It is not known if this is entirely due to higher disease prevalence in Asians or a higher risk of disease progression. The lack of an adequately diverse population followed longitudinally in a single center has previously precluded the ability to address this question.

**METHODS:** To determine if Asians with IgAN have a higher risk of ESRD, we analyzed a cohort of 669 adults from the Toronto GN Registry with biopsy-proven IgAN, in which 30% of subjects were of self-reported Asian race. Patients were followed prospectively for a median of 46 months. The primary outcome was time from kidney biopsy to ESRD (dialysis, transplantation or eGFR<15), which occurred in 213 patients, and was analyzed using Cox survival regression analysis.

**RESULTS:** The mean age, eGFR and proteinuria were 39.7 years, 59.6ml/min/1.73m<sup>2</sup> and 1.8g/day. After adjusting for age, sex, baseline eGFR, MAP and proteinuria over time, the use of ACEi/ARB and the use of immunosuppression, the risk of ESRD was significantly higher in Asians compared to non-Asians (HR=1.56 95%CI 1.10-2.22 p=0.01, see figure). This was supported by both a 1.62ml/min/1.73m<sup>2</sup>/year faster rate of eGFR decline in Asians (95%CI -3.19--0.5 p=0.04), and an increased risk of a 50% reduction in eGFR (HR=1.81 95%CI 1.25-2.62 p=0.002).

**CONCLUSIONS:** We have shown that in a large multi-racial cohort of patients with IgAN, Asians have a higher risk of progression to ESRD compared to non-Asians, after adjusting for known prognostic factors.