



PRESS RELEASE

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LOWER INCOME LINKED TO CERTAIN KIDNEY DISEASES

Highlight

- Researchers observed incremental increases in the incidence of 2 types of kidney disease—lupus nephritis and ANCA-related glomerulonephritis—with increasingly lower income.

Washington, DC (February 20, 2020) — A new study found an inverse association between socioeconomic status and certain kidney diseases. The findings appear in an upcoming issue of *CJASN*.

Social deprivation is a known risk factor for chronic kidney disease in general, but its potential link to glomerular diseases—autoimmune-type diseases that damage the filtering system of the kidneys—is less clear. To investigate, Mark Canney, PhD, Sean Barbour, MD, MSc (University of British Columbia and BC Renal), and their colleagues examined clinical and census-related information from 2000 to 2012 that pertained to all new cases of glomerular diseases called membranous nephropathy (392 cases), IgA nephropathy (818 cases), focal segmental glomerulosclerosis (FSGS, 375 cases), ANCA-related glomerulonephritis (ANCA-GN, 387 cases), and lupus nephritis (389 cases) in British Columbia, Canada.

“Glomerular diseases are complex conditions that require access to specialized care and expensive therapies, all of which may be more challenging for patients with a lower socioeconomic position. Also, they tend to affect people at a younger age and can thus negatively impact an individual’s earning capacity,” said Dr. Canney. He noted that although the underlying mechanism of disease is known for several glomerular diseases, what drives the onset of disease is poorly understood. “Therefore, an improved understanding of the potential contribution of socioeconomic position to different glomerular diseases could generate ideas for future research into factors that may directly cause glomerular disease.”

The team’s analysis revealed that the incidence of lupus nephritis and ANCA-GN increased steadily with progressively lower income (based on area-level household income). For example, compared with those with the highest level of income, those with the lowest level of income had a 70% higher incidence of lupus nephritis and a 50% higher incidence of ANCA- GN. For ANCA-GN, the condition occurred in 71 per 10 million people per year in the highest income group and 106 per 10 million people per year in the lowest income group. For lupus nephritis, the rates were 106 per 10 million people per year in the highest income group and 181 per 10 million in the lowest income group.

For FSGS, a disproportionately higher incidence of disease was seen only in the lowest income group. In contrast, no significant association was demonstrated for either IgA nephropathy or membranous nephropathy.

“Our results will help future studies that are designed to identify the underlying cause of glomerular disease and that may be related to socioeconomic position,” said Dr. Canney. “Our findings also emphasize the importance of identifying vulnerable populations of people who are at increased risk of developing these severe forms of kidney disease.”

An accompanying editorial notes that “clinicians and investigators should have a renewed focus on socioeconomic position when evaluating patients with suspected glomerular disease, determining recruitment populations for clinical trials, or designing observational studies aimed at identifying risk factors for glomerular disease onset.”

Study co-authors include Dilshani Induruwage, MSc, Anahat Sahota, Cathal McCrory, PhD, Michelle Hladunewich, MD, Jagbir Gill, MD, MSc, and Sean J. Barbour, MD, MSc.

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The article, entitled “Socioeconomic Position and Incidence of Glomerular Diseases,” will appear online at <http://cjasn.asnjournals.org/> on February, 2020, doi: 10.2215/CJN.08060719.

The editorial, entitled “Social Determinants of Glomerular Disease,” will appear online at <http://cjasn.asnjournals.org/> on February 20, 2020, doi: 10.2215/CJN.15051219.

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