

Simple blood tests detect autoimmune kidney disease, help predict prognosis

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Simple blood tests could help physicians decide which patients with a particular autoimmune kidney disease can forgo potentially toxic medications and which need to be treated, according to a study appearing in an upcoming issue of the *Journal of the American Society of Nephrology* (JASN).

Idiopathic membranous nephropathy is an autoimmune [kidney disease](#) that leads to [kidney failure](#) in at least half of patients if left untreated. [Immunosuppressive therapy](#) is effective, but toxic. "It is unclear who should be treated, when treatment should be started, and how long treatment should be continued. We need better tools to aid decision-making," said Julia Hofstra, MD, PhD (Radboud University Nijmegen Medical Center, in The Netherlands).

Researchers have recently identified antibodies—called antiPLA2R [autoantibodies](#)—that form and damage the kidneys when the disease develops. Clinicians do not have a standard technique for measuring these autoantibodies nor do they know whether autoantibody levels provide any information about the severity of patients' disease.

Hofstra, in collaboration with Hanna Debiec, PhD (Institut National de la Santé et de la Recherche Médicale, in France), Paul Brenchley, PhD (University of Manchester, in the United Kingdom), and others compared two different blood tests (called IIFT and ELISA) to measure antiPLA2R autoantibodies in 117 patients with idiopathic membranous nephropathy.

Among the major findings:

- 74% of patients tested positive for antiPLA2R antibodies by IIFT and 72% tested positive by ELISA.
- Concordance between both tests was excellent, with 94% agreement.
- Antibody levels significantly correlated with the severity of patients' disease.
- Spontaneous remissions occurred much less frequently among patients with high antibody levels (38% versus 4% in the lowest and highest groups, respectively).

The findings reveal high agreement between IIFT and ELISA measurements of antiPLA2R antibody levels and highlight the important role of these antibodies in idiopathic membranous nephropathy, given the relationships between antiPLA2R levels, disease severity, and remission rates.

"The data provide hope that in the near future, antiPLA2R antibodies can be detected with a simple assay and measuring the [antibody levels](#) may improve optimal treatment in patients with idiopathic membranous nephropathy," said Dr. Hofstra.

More information: The article, entitled "Antiphospholipase A2 Receptor Antibody Titer and Subclass in Idiopathic Membranous Nephropathy," will appear online on September 6, 2012, [doi: 10.1681/ASN.2012030242](https://doi.org/10.1681/ASN.2012030242)

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