

Autoimmune drug may help prevent kidney disease caused by diabetes

March 27 2014

A drug currently used to treat autoimmune disease may also help prevent the kidney-damaging effects of diabetes, according to a study appearing in an upcoming issue of the *Journal of the American Society of Nephrology (JASN)*. The findings suggest that clinical trials should be designed to test the drug in diabetic patients.

Kidney disease is one of the most serious complications of diabetes. Diabetics who develop [kidney disease](#), or [diabetic nephropathy](#), due to high blood glucose levels may eventually require dialysis or a kidney transplant.

Paolo Fiorina, MD, PhD (Boston Children's Hospital/Harvard Medical School) and his colleagues have discovered that a receptor called B7-1 is expressed by kidney cells during the progression of diabetic nephropathy. Furthermore, targeting this receptor with an available drug called CTLA4-Ig, or abatacept, helped to maintain kidney function in mice with diabetic nephropathy. Abatacept is currently being used to treat autoimmune disease due to its ability to target B7-1 expressed on immune cells.

"The next steps will be to test anti-B7-1 drugs in individuals with diabetes and diabetic nephropathy to see if they can abrogate the progression of the disease in humans as well," said Dr. Fiorina.

More information: The article, entitled "Role of Podocyte B7-1 in Diabetic Nephropathy," will appear online at jasn.asnjournals.org/ on

March 27, 2014.

Provided by American Society of Nephrology

Citation: Autoimmune drug may help prevent kidney disease caused by diabetes (2014, March 27) retrieved 18 April 2024 from <https://medicalxpress.com/news/2014-03-autoimmune-drug-kidney-disease-diabetes.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.