STUDY FURTHERS RESEARCH ON PROTEIN INVOLVED IN KIDNEY DISEASE

Highlight

- Investigators reveal that Apol1, a protein implicated in kidney disease, is produced mainly by the liver.

*Individuals of recent African ancestry have an increased risk of carrying variants in the APOL1 gene that are linked to kidney disease.*

**Washington, DC (December 8, 2016)** — Investigators have discovered important information about apolipoprotein L1 (ApoL1), which can contribute to the development of various forms of kidney disease. The findings appear in an upcoming issue of the *Journal of the American Society of Nephrology* (JASN).

Certain variants of the APOL1 gene that have been linked with an increased risk of developing kidney disease are mainly found in people of recent African ancestry. Despite extensive studies, it is not fully clear how the APOL1 gene and the resultant ApoL1 protein might contribute to kidney disease, and while it’s thought that ApoL1 is produced in the liver, this has never been proven.

To better understand the biology of Apol1, a team led by Martin Pollak, MD, Khuloud Shukha, MD, and Anders Berg, MD, PhD (Beth Israel Deaconess Medical Center) genotyped and quantified circulating ApoL1 in 2 liver transplant recipients whose native APOL1 genotype differed from the genotype of the deceased donors. This allowed the researchers to differentiate liver- versus nonliver-produced ApoL1.

The investigators confirmed that the liver is indeed the main source of circulating ApoL1; however, the liver is not the sole source, and residual amounts of native ApoL1 continue to circulate in the blood even after liver transplantation.

“Our study allowed us to take a step further in understanding the biology of this important protein, which will contribute to studies that continue to try and understand how this protein is causing kidney disease,” said Dr. Pollak. “The protein may also play a broader role in health, as some studies have shown a connection between ApoL1 and cardiac disease,” added Dr. Shukha.
Study co-authors include Jessica Mueller, Raymond Chung, MD, Michael Curry, MD, and David Friedman, MD.

Disclosures: Dr. Friedman and Dr. Pollak have filed patents related to ApoL1–associated kidney disease and own equity in Apolo1Bio, LLC.

The article, entitled “The vast majority of ApoL1 is secreted by the liver,” will appear online at http://jasn.asnjournals.org/ on December 8, 2016; doi: 10.1681/ASN.2016040441.

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Facebook: Investigators have discovered important information about apolipoprotein L1 (ApoL1), which can contribute to the development of various forms of kidney disease. The findings appear in the Journal of the American Society of Nephrology.

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