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Contacts: Tracy Hampton • (312) 339-9067 • thampton@nasw.org

Christine Feheley • (202) 640-4638 • cfeheley@asn-online.org

PRIOR KIDNEY DAMAGE MAY POSE RISKS FOR PREGNANT WOMEN AND THEIR BABIES

Study links a history of acute kidney injury with preeclampsia and adverse fetal outcomes

Highlights

 Women with a history of recovered acute kidney injury had an increased rate of preeclampsia and delivered infants earlier than women with a history of normal kidney function.

Washington, DC (December 22, 2016) — A past episode of kidney damage, despite return to normal kidney function before pregnancy, was linked to adverse pregnancy outcomes in a recent study. The findings, which appear in an upcoming issue of the *Journal of the American Society of Nephrology* (JASN), point to the importance of past kidney health for pregnant women and their babies.

Acute kidney injury (AKI), an abrupt decline in kidney function, is an increasingly prevalent and potentially serious condition that is most often studied in elderly individuals and critically ill patients; however, it also arises in children and young adults and can lead to serious health problems.

Jessica Sheehan Tangren, MD (Massachusetts General Hospital) and her colleagues wondered whether a history of recovered AKI (r-AKI) increases the risk of later problems during pregnancy. The team retrospectively studied all women who delivered infants between 1998 and 2007 at Massachusetts General Hospital: 105 women with r-AKI and 24,640 women without kidney disease. Women with r-AKI had an increased rate of preeclampsia compared with controls (23% vs. 4%). Also, infants of women with r-AKI were born earlier than infants of controls (average 37.6 vs. 39.2 weeks), with increased rates of small-for-gestational-age births (15% vs. 8%). After adjusting for various patient factors, r-AKI was linked with a 5.9-times increased risk for preeclampsia and a 2.4-times increased risk for adverse fetal outcomes.

"We believe that this study highlights an important finding that will be useful for medical providers caring for reproductive-age women. Our goal in future studies is to address why women with a history of AKI are at higher risk for pregnancy complications and to identify strategies to lower their risk," said Dr. Tangren. "Furthermore, we hypothesize that the

varying rates of preeclampsia reported worldwide may be explained, at least partially, by our study."

Study co-authors include Camille Powe, MD, Elizabeth Ankers, BA, Jeffrey Ecker, MD, Kate Bramham MD, PhD, Michelle Hladunewich, MD, S. Ananth Karumanchi, MD, and Ravi Thadhani, MD, MPH.

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The article, entitled "Pregnancy Outcomes Following Clinical Recovery from Acute Kidney Injury," will appear online at http://jasn.asnjournals.org/ on December 22, 2016, doi: 10.1681/ASN.2016070806.

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Media: smcgreevey@mgh.harvard.edu