

Hypertension during pregnancy increases risk of end-stage renal disease

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Women with hypertensive disorders in pregnancy are at higher risk of chronic kidney disease and end-stage renal disease compared with women without the disorders, according to a study in *CMAJ* (*Canadian Medical Association Journal*).

"We found that women with hypertensive disorders during [pregnancy](#) were at higher risk of end-stage [renal disease](#) than women without complicated pregnancies," writes Dr. I-Kuan Wang, Division of [Nephrology](#), China Medical University Hospital, Taichung, Taiwan, with coauthors.

Hypertensive disorders such as gestational hypertension and [preeclampsia](#) in pregnancy can have a major impact on the health of the mother and baby and are risk factors for death. An estimated 5% to 10% of pregnancies are affected by hypertensive disorders. [Kidney function](#) can be affected.

Researchers looked at data on 26 651 women in Taiwan with hypertensive disorders in their first pregnancy to determine whether there was an increased risk of end-stage renal disease compared with a group of 213 397 women without the disorders. The women were 19 to 40 years old and did not have a history of hypertension, diabetes or kidney disease.

Taiwan has one of the highest rates of end-stage renal disease in the world.

The incidence of chronic kidney disease was almost 11-fold higher in the group with hypertensive disorders in pregnancy compared with the women without the disorders. End-stage renal disease was 14-fold higher in the cohort with hypertensive disorders. The risk for women with preeclampsia was higher than for those with only gestational hypertension.

"We found an increased risk of subsequent end-stage renal disease among Taiwanese women who had experienced hypertensive disorders during pregnancy, including preeclampsia or eclampsia and gestational hypertension," write the authors. "We also found that women with preeclampsia or eclampsia were at higher risk of end-stage renal disease than those who had gestational hypertension only."

There is little data on the link between hypertensive disorders during pregnancy and the risk of end-stage renal disease. This study is consistent with a Norwegian study that found a similar link between these disorders and later kidney disease.

"Close surveillance for microalbuminuria, blood pressure and diabetes should be considered for women with a history of hypertensive disorders during pregnancy. Preventive strategies, such as pharmacologic or lifestyle interventions, should also be considered for women at high risk of end-stage renal disease," conclude the authors.

"This study by Wang and colleagues is timely because it shows the importance of hypertension during pregnancy as a marker for future chronic kidney disease, cardiovascular disease and diabetes," write Dr. Julia Spaan from Maastricht University Medical Center, the Netherlands, and Prof. Dr. Mark Brown from the University of New South Wales, Australia, in a related commentary ([pre-embargo link only](#)) "It also highlights one of the current pitfalls of clinical practice: although these women have great attention paid to their high blood pressure

during pregnancy, there is no structured follow-up of blood pressure or cardiovascular and renal [risk factors](#) after pregnancy. Better surveillance after pregnancy should help prevent not only [chronic kidney disease](#) but also cardiovascular disease.

More information: Research:

www.cmaj.ca/lookup/doi/10.1503/cmaj.120230

Commentary: www.cmaj.ca/lookup/doi/10.1503/cmaj.130007

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