

Women with preeclampsia in first 37 weeks of pregnancy at higher risk of heart problems in later life

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(Medical Xpress) -- Women with preeclampsia in the first 37 weeks of pregnancy are at greater risk of developing heart problems in the years after giving birth than those who develop the condition in the final weeks, according to new research.

Researchers have shown that more than half of [pregnant women](#)

suffering from [preeclampsia](#) in their first 37 weeks – during preterm pregnancy – developed a heart problem called left ventricular dysfunction within two years of giving birth. The condition was asymptomatic, meaning they did not show any obvious symptoms, but the researchers were able to detect signs of the problem with a heart ultrasound scan.

This dysfunction – a problem with one of the heart’s blood pumping chambers – can lead to [heart failure](#). Heart failure is a condition that occurs when the heart cannot pump enough blood around the body, and – if it deteriorates – can result in fatigue, shortness of breath and, in the worst cases, death.

Preeclampsia – which affects about 3.5 per cent of pregnancies and symptoms of which include high blood pressure, swollen ankles and protein in the urine – was already known to be a signal of heart failure in later life. However, it was not known if there was a difference in the prevalence of [heart problems](#) between women with preterm preeclampsia and women who developed it at term – after 37 weeks and before the birth.

The new findings – made by researchers at St. George’s, University of London – may lead to earlier identification of the women most at risk, allowing earlier preventive treatment.

The researchers studied 64 women with preeclampsia, and 78 without. They used echocardiography and tissue Doppler analysis – which use sound waves to, respectively, create an image of the heart and detect tiny vibrations – to test for heart abnormalities.

In the study group, the risk of asymptomatic heart dysfunction during the pregnancies of women with preeclampsia at term – when around 80 per cent of preeclampsia cases are diagnosed – was as high as those at

preterm. Around 40 per cent of each group had a problem. However, while the preterm group's risk increased in the two years after giving birth, the term group's reduced dramatically. They were only slightly more at risk than those who did not develop preeclampsia at all.

Professor Basky Thilaganathan – professor of fetal medicine at St George's – led the study, which has been published in the journal *Hypertension*.

He said: “This is a breakthrough in our understanding of the relationship between preeclampsia and heart failure. The risk of asymptomatic heart failure among [women](#) with preterm preeclampsia is higher, and occurs much earlier, than anyone imagined.”

“Effectively, we can now use preterm preeclampsia as a surrogate marker to identify and prevent underlying heart problems that may become seriously harmful many years after [giving birth](#).”

More information: The full paper (Preeclampsia is Associated With Persistent Postpartum Cardiovascular Impairment) can be found on the website of the journal *Hypertension* at:

hyper.ahajournals.org/content/58/4/709.full

Provided by St. George's University of London

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