Researchers evaluate effectiveness of placental growth factor measurement in mid-pregnancy

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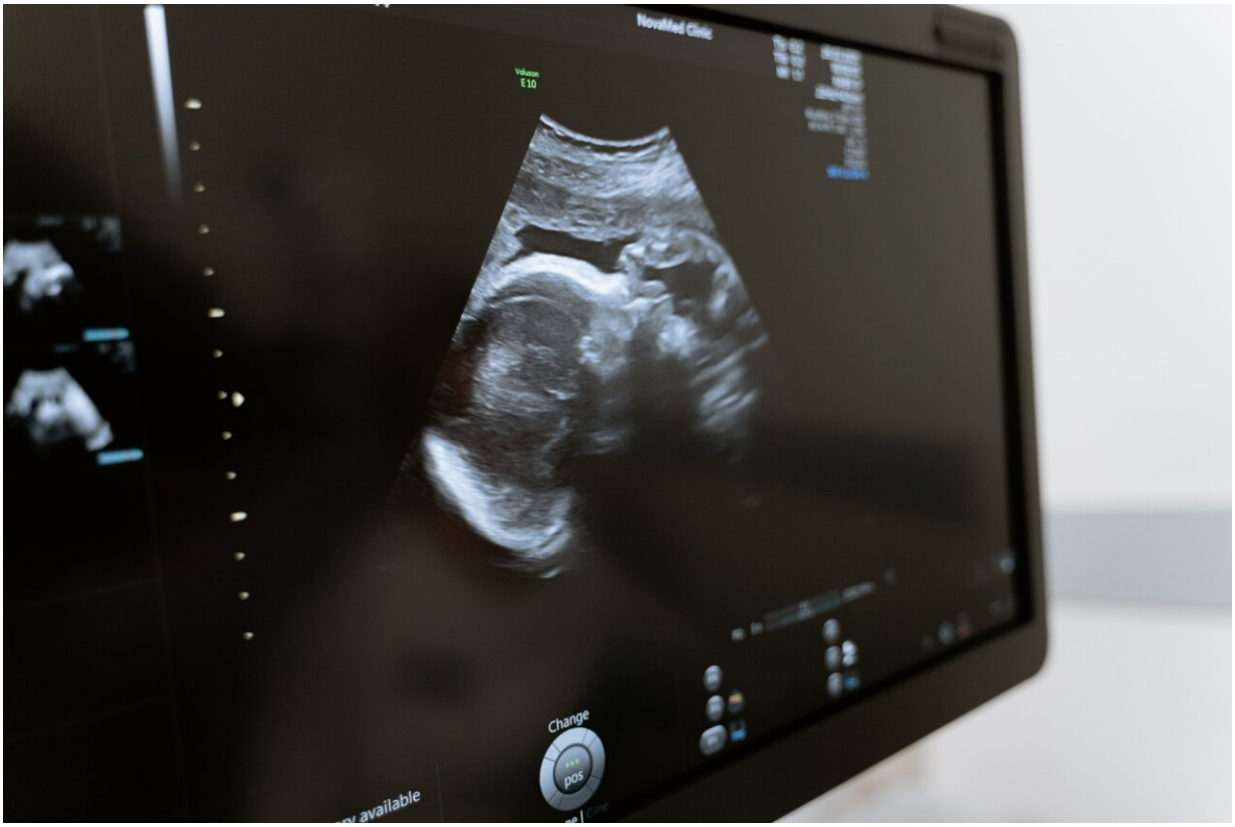

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A new study led by Professor Laura Magee, has found that among pregnancies with clinical risk factors for pre-eclampsia or fetal growth

restriction, measuring serum placental growth factor (PlGF) at the time of the routine 20-week fetal ultrasound scan is not helpful to inform clinical care pathways. The work is published in the *BJOG: An International Journal of Obstetrics & Gynaecology*.

Pre-eclampsia and fetal growth restriction are leading causes of maternal and fetal/newborn mortality and morbidity, here in the U.K. and worldwide. Identifying these pregnancies is a key objective of antenatal care, and national guidance advises that maternity care-providers identify women with clinical risk factors, so that they can be offered enhanced surveillance and/or low-dose aspirin.

However, it is recognized that clinical risk factors are common, and they pick up less than half of pregnancies that end in complications, including gestational hypertension, stillbirth, and prolonged neonatal intensive care unit admission.

As low serum placental growth factor (PlGF) has been associated with both pre-eclampsia and fetal growth restriction, this study evaluated whether PlGF could be measured at 19–23 weeks' gestation, in conjunction with the routine ultrasound assessment for fetal anomalies, as a "contingency screening tool" to improve the predictive performance of clinical risk factors for the subsequent development of pre-eclampsia, fetal growth restriction, or other related complications.

More than 30,000 pregnancies at 19–23 weeks' gestation were screened with PIGF at King's College Hospital and Medway Maritime Hospital. From that dataset, 33% of pregnancies had a clinical risk factor for pre-eclampsia or fetal growth restriction, and they experienced 42%–55% of the adverse outcomes during or after pregnancy.

When PlGF testing at 19–23 weeks' gestation was added in a second step to earlier risk factor screening, a low PlGF was associated with a higher

risk of problems before term gestational age, but these represented