BioSpectrum
the business of Bio & Health Sciences
ASIA EDITION

Maternal metabolic factors and early-onset puberty may be related

April 16, 2018 | News

Kaiser Permanente study is the largest population-based research on topic



Singapore - In a study of more than 15,000 girls and their mothers — all Kaiser Permanente members in Northern California — maternal overweight and hyperglycemia were linked to the earlier onset of puberty in girls 6 to 11 years old. Early puberty has been linked to multiple adverse health developments as girls grow up.

The study, "Associations between maternal obesity and pregnancy hyperglycemia and timing of pubertal onset in adolescent girls: A population-based study," was published in American Journal of Epidemiology. The girls in the study were from diverse cultures and ethnicities.

"We know that maternal weight can influence childhood weight. What we are learning is that the in utero environment may also affect the timing of future pubertal development in offspring, which makes sense since human brains are developed in utero and the brain releases hormones affecting puberty," said lead author Ai Kubo, MPH, PhD, research scientist with the Kaiser Permanente Northern California Division of Research.

This research builds on previous Kaiser Permanente research that demonstrated earlier onset of puberty in American girls, as well as the possible role of environmental, perinatal and other risk factors. Early puberty, including the early onset of breast development or menarche (initiation of menstruation), increases the risk of adverse health outcomes including obesity, type 2 diabetes, polycystic ovarian syndrome, and cancer in adolescence and adulthood. For girls, it has been linked to a higher risk of adverse emotional and behavioral outcomes including depression, anxiety, earlier sexual initiation and pregnancy.

This study was funded by the National Institutes of Health.