Tylenol use in pregnancy may be linked with uterus, ovary changes in daughters

Synopsis

A recent study suggests Tylenol use by mothers during pregnancy may affect infant reproductive organ development. Researchers observed smaller ovaries and uteruses in three-month-old girls exposed to the drug. This exposure was also linked to fewer ovarian follicles and lower reproductive hormone levels. Long-term follow-up is needed to determine implications for future fertility and menopause timing. Current guidelines still recommend Tylenol as safe for pregnancy pain and fever relief.

Female reproductive organ development may be impacted by a mother's use of Tylenol during pregnancy, according to researchers who emphasise that their study does not prove the pain medicine is to blame and does not indicate any effect on the girls' future fertility.

Whether the differences observed in the study of infants have implications for fertility later in life and age at menopause will require long-term follow-up, study leader Margit Bistrup Fischer of Rigshospitalet in Copenhagen said in a statement.

Women who during pregnancy have used Tylenol - also sold as acetaminophen, or paracetamol outside the U.S. - should not be alarmed by the findings, Fischer said.

Her team studied 302 three-month-old baby girls whose mothers' Tylenol use had been tracked during pregnancy.

Ninety-two of the infants were first exposed to Tylenol in utero before 17 weeks of pregnancy, 67 were first exposed after 17 weeks, and 143 were born to mothers who had not used the drug.

Tylenol exposure was assessed based on urine samples provided by the women at regular intervals. The mothers took relatively low amounts, and none exceeded the recommended daily maximum dose of 4,000 milligrams. Most took it for headaches or musculoskeletal pain.

On average, infants exposed in utero had smaller ovaries, fewer ovarian follicles, which are the structures that contain immature eggs, smaller uteruses and lower levels of reproductive hormones, researchers reported on Wednesday in Human Reproduction Open.

A woman's reproductive function and window are established while she's still in the womb, the researchers explained, and girls are born with all the eggs they will ever have.

Animal studies have suggested that fetal exposure to Tylenol, the most commonly used drug in pregnancy, might affect ovarian egg reserve and later reproductive function, but no one has reported similar findings in humans until now.

U.S. President Donald Trump has linked the use of Tylenol during pregnancy to autism, a claim that has been widely dismissed by the medical community and major health organisations as lacking scientific backing.

MEASURING IMPACT ON OVARIES AND UTERUS

The three-month-old girls in the study who were exposed to Tylenol in utero had, on average, a 40% smaller ovarian volume, a 13% smaller uterine volume and 23% fewer ovarian follicles, the researchers found.

Babies exposed early in pregnancy—before 17 weeks—also had lower levels of Anti-Mullerian hormone, an indicator of the amount and quality of eggs in the ovaries.

The researchers also looked at a separate group of 1,210 girls who were followed from infancy to adolescence and whose mothers had reported Tylenol use during pregnancy. In this group, fetal exposure was associated with smaller uteruses at puberty and smaller ovaries during adolescence.

The study cannot predict outcomes for any individual woman or child, Fischer said, noting that many women who used Tylenol during pregnancy had daughters whose ovarian measurements were similar to those of daughters born to women who did not use the drug.

Current guidelines continue to recommend Tylenol as safe for treating pain and fever during pregnancy. Untreated high fever or severe pain can themselves pose risks to the mother and the fetus, Fischer said.

In an accompanying commentary, Dr. Christian De Geyter, a reproductive medicine specialist at the University Hospital of Basel, Switzerland, said the researchers' findings fit well with data from research in animals.

Follow-up of girls exposed to Tylenol in utero should extend into menopause, he said, adding that recommendations on its use during pregnancy should be reconsidered.

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