Researchers find drugs that reduce infant death may lead to long-term health issues

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Steroids commonly offered to pregnant people with increased risk of preterm birth may be unnecessary and may lead to long-term health issues for the infants, according to new research led by McMaster
University.

The research, published in *The BMJ*, analyzed data from 1.6 million infants and found approximately 40 percent of infants with early exposure to corticosteroids—defined as exposure at 34 weeks gestation or earlier—were born at term. The full-term infants had an increased risk of both short and long-term health issues, including neonatal intensive care admission, respiratory and growth issues, and adverse neurodevelopmental outcome, researchers found.

Corticosteroids are used to increase very preterm infant survival rates and reduce health issues, however the effects on the infant's long-term health have not been well understood, particularly in infants who exceed expectations and are born at term. The research suggests that many babies exposed to steroids avoid preterm birth, but new risks for other future health complications are introduced.

"Preterm birth is very challenging to predict; we need better prediction models to avoid over-exposure to interventions like steroids as there may be a potential risk," said Sarah McDonald, senior author of the study and a professor in the Department of Obstetrics and Gynecology at McMaster University.

To conduct the study, researchers conducted a systematic review and meta-analysis of data from seven randomized controlled trials and 10 population-based studies involving 1.6 million infants born since 2000.

More than half of infants with early exposure to corticosteroids were born at term (37 weeks or more) and late preterm (34-36 weeks) combined, and researchers found similar outcomes among this combined group. For infants born very prematurely, antenatal steroids potentially save lives and reduce severe morbidity but as pregnancy progresses to term, the benefits shift to risks.
"Antenatal steroids are a double-edged sword: very beneficial for babies born very early, and potentially harmful for babies born at term," said McDonald, who is a Canada Research Chair in Maternal and Child Disease Prevention and Intervention.

The authors say more research with long-term follow-up in randomized controlled trials is critical. They also caution for a less liberal approach to the use of steroids during pregnancy.


Provided by McMaster University

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