Study finds some medications may interact with common anti-recurrent preterm birth medication

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In a study to be presented today at the Society for Maternal-Fetal Medicine's annual meeting, The Pregnancy Meeting, in Dallas, Texas, researchers will report findings that indicate that prescription medications may affect the body's ability to metabolize 17-alpha-hydroxyprogesterone caproate (17-OHPC), the only FDA approved medication for the prevention of recurrent preterm birth.

While 17-OHPC is routinely prescribed, much is still unknown about how it works. Studies have shown a large variation in the concentration of 17-OHPC present in women treated with the standard dose of the medication. It is known that 17-OHPC is metabolized by the CYP3A4 enzyme, which is also responsible for the metabolism of many prescription medications. This study, Effect of Prescription Medications on 17-Alpha-Hydroxyprogesterone Caproate (17-OHPC) Metabolism, sought to determine whether prescription medications can alter the metabolism of 17-OHPC and contribute to the variability of 17-OHPC concentration observed in women taking the same dose.

"We conducted an in vitro experiment to examine the effect of 25 different prescription medications on the metabolism of 17-OHPC. Over half of the drugs inhibited 17-OHPC metabolism by 50 percent or more," said Courtney Cuppett, MD, with the Magee-Womens Hospital, University of Pittsburgh, Maternal Fetal Medicine, Pittsburgh, Pa., and one of the study's authors. "This indicates that prescription medications

may indeed affect 17-OHPC metabolism."

The findings indicate that if a therapeutic level is defined for 17-OHPC, doses may have to be adjusted if certain other medications are also being taken. Whether or not there is a converse interaction with 17-OHPC inhibiting the metabolism of prescription medications requires further exploration.

The study, conducted by Cuppett and Yang Zhao and Raman Venkataramanan, University of Pittsburgh, School of Pharmacy, Pittsburgh, Pa., and Steve Caritis with Magee-Womens Hospital, University of Pittsburgh, Maternal Fetal Medicine, Pittsburgh, Pa., was supported by a National Institute of Child Health and Human Development Obstetric-Fetal Pharmacology Research Unit Network grant.

More information: A copy of the abstract is available at www.smfmnewsroom.org/annual-me … 1-meeting-abstracts/

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