

Study suggests in utero corticosteroid exposure is not detrimental to offspring neurodevelopment

October 27 2023, by Elana Gotkine



In utero exposure to corticosteroids and β 2-adrenergic agonists appears to not be associated with most offspring neurodevelopmental outcomes,

according to a study published online Oct. 24 in *JAMA Network Open*.

Abir Nagata, Ph.D., from Osaka University in Japan, and colleagues examined the association between timing of in utero exposure to [corticosteroids](#) and beta (β)2-adrenergic agonists and offspring neurodevelopmental milestones during the first three years of life using data from the ongoing Japan Environment and Children's Study.

A total of 91,460 mother-offspring pairs were analyzed. Overall, 0.4, 1.0, and 0.6% of offspring were exposed to corticosteroids in early, mid-to-late, and both stages of pregnancy, respectively, and 0.2, 0.4, and 0.2% were exposed to β 2-adrenergic agonists.

The researchers observed no association for corticosteroid exposure during early, mid-to-late, and both stages of pregnancy with any of the five neurodevelopmental milestones. Furthermore, no association was seen for β 2-adrenergic agonist exposure during early pregnancy with any of the milestones. β 2-adrenergic agonist exposure during mid-to-late pregnancy was associated with delayed personal-social skills (adjusted odds ratio, 1.48).

"Despite the study's limitations and its low power, these findings suggest that corticosteroids and β 2-adrenergic agonists could be considered safe for use by pregnant individuals with asthma and safe for the neurodevelopment of their [offspring](#)," the authors write. "Additionally, the findings may inform choices regarding the management of maternal asthma during [pregnancy](#)."

More information: Abir Nagata et al, Neurodevelopmental Outcomes Among Offspring Exposed to Corticosteroid and B2-Adrenergic Agonists In Utero, *JAMA Network Open* (2023). [DOI: 10.1001/jamanetworkopen.2023.39347](https://doi.org/10.1001/jamanetworkopen.2023.39347)

Copyright © 2023 [HealthDay](#). All rights reserved.

Citation: Study suggests in utero corticosteroid exposure is not detrimental to offspring neurodevelopment (2023, October 27) retrieved 12 May 2024 from <https://medicalxpress.com/news/2023-10-utero-corticosteroid-exposure-detrimental-offspring.html>

<p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p>
--