

Paracetamol Use and Alleged Association with Autism Spectrum Disorder

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Dear Editor,

Recent public discussions have raised concerns regarding a purported association between paracetamol (acetaminophen) use – particularly during pregnancy – and the subsequent development of autism spectrum disorder (ASD) in children. While these claims have been amplified by media and public figures, current scientific evidence does not support a causal relationship between paracetamol exposure and ASD.

Paracetamol has been used safely for over 50 years as one of the most widely recommended analgesic and antipyretic agents in pediatric and obstetric practice. Although some observational studies suggest a possible association between prenatal paracetamol exposure and neurodevelopmental outcomes, these studies are heavily limited by confounding factors such as maternal fever, viral infections, genetic predisposition, recall bias, and difficulties in accurately estimating dosage and timing. Notably, fever itself is an established risk factor for adverse neurodevelopmental outcomes, making it difficult to distinguish the effects of fever from the effects of the medication used to treat it.

Importantly, no randomized controlled trials or well-designed prospective cohort studies have demonstrated a direct

causal link between paracetamol use and ASD. Furthermore, no plausible biological mechanism has been identified that would support such a claim. Several recent meta-analyses and expert committee evaluations have concluded that available data are insufficient to recommend limiting clinically indicated paracetamol use during pregnancy or childhood.^[1-18]

Dissemination of unsupported claims regarding medication safety may lead to treatment hesitancy among parents, potentially resulting in undertreatment of fever or pain, which carries its own well-documented risks. Public health communication must rely on robust, high-quality evidence to prevent unnecessary anxiety and avoid detrimental health outcomes.

Existing scientific literature does not support a causal relationship between paracetamol use and ASD. Paracetamol remains a safe, effective, and essential therapeutic option when used appropriately. Claims suggesting otherwise should be interpreted with caution and in the context of well-established scientific evidence.

DECLARATIONS

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