Beyond pain relief: the unseen consequences of NSAIDs misuse in pregnancy

Sufyan Shahid

The non-steroidal anti-inflammatory drugs (NSAIDs) are a class of drug with analgesic, anti-inflammatory, and antipyretic effects. Their primary mechanism of action is the inhibition of the cyclooxygenase (COX) enzyme and a consequent reduction in prostaglandin levels. There is a high global prevalence of NSAIDs used by pregnant females for pain management because of the abundance and ease of access to these compounds. In Pakistan, the most commonly used OTC analgesic medications during pregnancy include acetaminophen, ibuprofen and aspirin.[1] A study by Bohio et al discovered that 77.4% of women taking these medications have no knowledge about their dosage and potential adverse effects.[2]

A recent systematic review by Ambrosio et al. established that the use of NSAIDs during pregnancy can cause oligohydramnios by blocking the synthesis of prostaglandins responsible for normal foetal renal perfusion.[3] Oligohydramnios is a serious condition characterised by abnormally low volume (< 500 ml) of amniotic fluid between the 32nd and 36th weeks of pregnancy.[4] It is associated with unfavourable maternal and foetal health outcomes, including a 5-fold increase in stillbirths and a 3-fold increase in deaths among neonates.[5] The weight of babies from pregnancies complicated by oligohydramnios is, on average, 162 g less than those without oligohydramnios.[5]

It is a cause of concern since Pakistan has the highest incidence of oligohydramnios during the third trimester of pregnancy among low-middle-income countries.[5] One of the reasons is the self-administration of NSAIDs by pregnant females due to a lack of proper medical supervision. Hence, a multifaceted approach involving healthcare professionals, policymakers, and general population is required to address this issue of NSAIDs misuse in Pakistan.

This includes education of pregnant women regarding the safe and appropriate management of pain, existing alternate treatment options and consequences of non-prescribed OTC analgesic use during pregnancy. Secondly, the use of NSAIDs should be limited to lowest effective dose for the shortest duration and only in situations where maternal benefits outweigh the potential foetal risk. Lastly, ultrasound monitoring of amniotic fluid should be considered beyond 48 h of NSAIDs treatment and if a decline Amniotic Fluid Index (AFI) is present, therapy should be discontinued.

Furthermore, government authorities and community stakeholders should implement regulatory policies to restrict the sale of NSAIDs without a prescription and conduct public awareness campaigns regarding their potential adverse effects.

DOI: https://doi.org/10.47391/JPMA.20740

Disclaimer: None.
Conflict of Interest: None.

Source of Funding: None.

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Final Year MBBS Student, Khawaja Muhammad Safdar Medical College, Sialkot, Pakistan.
Correspondence: Sufyan Shahid.
Email: sufyanshahid09@gmail.com
ORCID ID: 0009-0002-9236-0822

Submission complete: 06-05-2024 **1st Revision received:** 07-09-2024
Acceptance: 11-09-2024 **Last Revision received:** 07-09-2024

AUTHORS' CONTRIBUTIONS:
SS: Agreement to be accountable for all aspects of the work.