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Letters to the Editor: Published Article

A Complex Phenomenon: Medication Overuse Headache and Childhood Experiences

Prateek Kumar Panda and Indar Kumar Sharawat
All India Institute of Medical Sciences, Rishikesh, India

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We read with great interest the recently published article titled "Adverse Childhood Experiences and Medication Overuse Headache: Burden and Treatment Impact" by Sandoe et al.[1] The authors have concluded that patients with adverse childhood experiences (ACEs) reported more opioid overuse and worse headache-related disability at follow-up, despite similar monthly headache days. However, we wish to add a few points.

The authors have mentioned the prevalence of codeine and non-codeine opioid use in patients with medication overuse headache (MOH) at baseline and follow-up. However, they have not indicated whether the prevalence of triptan and non-steroidal anti-inflammatory drug use was also different in those with and without ACEs. Furthermore, the authors did not employ any scale to determine the severity of medication overuse, such as the Severity of Dependence Scale (SDS). Previous studies have suggested that up to 50% of patients with MOH exhibit signs of moderate to severe dependence on analgesics.[2] Providing this information would have been more informative for readers. The authors have outlined the use of various therapeutic strategies, but they did not specify whether they acutely or gradually tapered the use of analgesics. Previous clinical studies suggest that abrupt withdrawal is advantageous for non-opioid analgesics, triptans, caffeine and ergotamines compared with barbiturates or opioids due to the risk of developing withdrawal symptoms.[3,4] It would have been more informative if the authors had provided these details, including how many patients developed opioid withdrawal symptoms on follow-up, considering a substantial proportion were overusing opioid analgesics.

Second, the authors need to re-evaluate some of the *p*-values in Table 1 of the article. The duration of MOH in the ACE group and non-ACE group was 9 ± 13 years and 3 ± 3 years, respectively. The distribution of this variable, as well as the Patient Health Questionnaire (PHQ) score, appears to follow a non-normal distribution, and for such variables, better descriptive statistics would be the median and interquartile range. Similarly, instead of using the total PHQ-4 score, it would be better if the authors mentioned how many patients had anxiety and depression and the severity of these symptoms. PHQ-4 scores are rated as normal (0–2), mild (3–5), moderate (6–8) and severe (9–12). A total score ≥ 3 for the first two questions suggests anxiety, while a total score ≥ 3 for the last two questions suggests depression.[5] Both anxiety and depression are important comorbid conditions and determinants of analgesic overuse and clinical response in previous studies. Past literature also suggests that smoking, working status and alcohol use are also important determinants of a reduction in migraine disability assessment score at follow-up.[6]

Lastly, the authors mentioned that they did not use a structured ACEs questionnaire as they found that these can trigger distress, especially in new patients. However, Anto et al.[7] have successfully used a cumulative ACE score by simply asking about the presence/absence of various ACEs in adolescents and also showed it is an important determinant of MOH and clinical response to treatment. The authors have also skipped asking about a few important ACEs like lack of parental warmth, parental substance abuse, household mental illness, maternal alcoholism, paternal alcoholism, witnessing/experiencing a shooting or stabbing, experiencing a shooting or stabbing, having a knife or gun pulled on you, being cut or stabbed, being jumped or beaten up, living in an unsafe neighbourhood and having a family member attempt or complete suicide, previously used in the study by Anto et al.[7] It would have been clinically more informative if the authors provided additional data regarding these aspects.

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References

1. Sandoe CH, Lawler V, Lena S, Lagman-Bartolome AM, Lay C. Adverse childhood experiences and medication overuse headache: burden and treatment impact. *Can J Neurol Sci*. 2023;50:918–21.
2. Lundqvist C, Gossop M, Russell MB, Straand J, Kristoffersen ES. Severity of analgesic dependence and medication-overuse headache. *J Addict Med*. 2019;13:346–353.
3. Krymchantowski A, Jevoux C, Krymchantowski AG, Ramos LB, Barbosa JSS, Silva-Neto RP. Medication-overuse headache-a review of different treatment strategies. *Front Pain Res (Lausanne)*. 2023;4:1103497.
4. Sharawat IK, Panda PK. Caregiver satisfaction and effectiveness of teleconsultation in children and adolescents with migraine during the ongoing COVID-19 pandemic. *J Child Neurol*. 2021;36:296–303.

Corresponding author: Indar Kumar Sharawat; Email: sherawatdrindar@gmail.com
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5. Wicke FS, Krakau L, Löwe B, Beutel ME, Brähler E. Update of the standardization of the patient health questionnaire-4 (PHQ-4) in the general population. *J Affect Disord*. 2022;312:310–4.
6. Panda PK, Ramachandran A, Sharawat IK, Bhat NK. Feasibility, Utility, and interrater reliability of the cluster headache severity scale, cluster headache quality of life, cluster headache index, and 6-item headache impact test in pediatric cluster headache. *J Child Neurol*. 2022;37:825–32.
7. Anto M, Jaffee S, Tietjen G, Mendizabal A, Szperka C. Adverse childhood experiences and frequent headache by adolescent self-report. *Pediatr Neurol*. 2021;121:51–5.

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