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LETTER

Letter to the Editor Regarding "Effect of Preoperative Sleep Disorders on Postoperative Enteral Nutrition Intolerance in Patients with Digestive Tract Tumors: A Prospective Cohort Study" [Letter]

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Dear editor

We read with great interest the recent article by Chen et al[1] titled "Effect of Preoperative Sleep Disorders on Postoperative Enteral Nutrition Intolerance in Patients with Digestive Tract Tumors: A Prospective Cohort Study" published in Nature and Science of Sleep. The study provides valuable insights into the relationship between preoperative sleep disturbance and postoperative enteral nutrition intolerance in patients undergoing gastrointestinal surgery. However, upon careful review, we noted several methodological issues that may affect the interpretation and robustness of the findings.

Firstly, although the authors estimated that 39 participants per group were required, only 26 were ultimately enrolled in the sleep disturbance (SD) group. Moreover, the sample size calculation did not account for the commonly expected 10–15% dropout rate in perioperative studies. As shown in Figure 1, 18 participants were excluded due to "incomplete data", but the manuscript does not specify the reason for exclusion or how these data were handled. Insufficient sample size and unclear data management may reduce statistical power and introduce selection bias. Clarifying these aspects and performing a post-hoc power or sensitivity analysis would strengthen the reliability of the findings.

Secondly, according to the study results, hypnotic use differed markedly between groups—approximately one-third of patients in the SD group reported using hypnotic medication, whereas none in the non-SD group did. Such an imbalance could substantially influence physiological and biochemical outcomes. Hypnotic agents, including zolpidem[2] and benzodiazepines, have been shown to modulate hypothalamic–pituitary–adrenal (HPA) axis activity and alter cortisol secretion, oxidative stress levels, and even gut microbiota composition.[3] These effects may confound the associations reported between sleep disturbance and enteral nutrition intolerance. Adjusting for hypnotic use in the analyses or performing sensitivity analyses excluding such patients may clarify the independent effect of sleep disturbance.

Lastly, ENI was defined using the Enteral Nutrition Tolerance Scale, and any non-zero score was classified as "intolerance" in this study. While this approach increases sensitivity, it may overestimate the clinical incidence by including mild or transient symptoms. A more detailed presentation of ENI severity would enhance the interpretability and reliability of the reported associations.

In conclusion, this study raises important questions about the role of preoperative sleep disturbance in postoperative enteral nutrition intolerance. Careful consideration of sample size, hypnotic use, and ENI definition in future work will help strengthen the reliability and clinical relevance of these findings.

Data Sharing Statement

Data sharing is not applicable to this communication as no data were created or analysed in this communication.

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All authors approved the final version accepted for publication; agreed on the journal to which this communication was submitted; and agreed to take responsibility and be accountable for the contents of this communication.

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Disclosure

The authors declare no conflicts of interest.

References

1. Chen M, Zhong W, Yu T, Cao C, Huang H, Yu J. Effect of preoperative sleep disorders on postoperative enteral nutrition intolerance in patients with digestive tract tumors: a prospective cohort study. *Nat Sci Sleep*. 2025;Volume 17:2699–2713. doi:10.2147/NSS.S539712
2. Roehrs T, Roth T. Hyperarousal in insomnia: pre-sleep and diurnal cortisol levels in response to chronic zolpidem treatment. *Sleep Med*. 2019;61:52–56. doi:10.1016/j.sleep.2019.04.010
3. Lin Z, Jiang T, Chen M, Ji X, Wang Y. Gut microbiota and sleep: interaction mechanisms and therapeutic prospects. *Open Life Sci*. 2024;19(1). doi:10.1515/biol-2022-0910

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