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RESPONSE TO LETTER

Efficacy and Clinical Significance of Postoperative Transcutaneous Electrical Acupoint Stimulation [Response to Letter]

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Dear editor

We thank Huang et al for their thoughtful comments on our randomized, double-blinded, sham-controlled trial evaluating transcutaneous electrical acupoint stimulation (TEAS) applied in the post-anesthesia recovery period after gynecological laparoscopic surgery.[1] Their letter raises three points—baseline comparability, perioperative analgesia, and clinical significance—which we address below.

Baseline Patient Comparability

We agree that preoperative characteristics influence recovery. Our randomization and allocation concealment were intended to balance both measured and unmeasured confounders; indeed, age, BMI, surgical type/duration, and anesthesia times were comparable between groups. Importantly, ASA physical status was balanced ($P = 0.157$), and preoperative Quality of Recovery-15 (QoR-15) total and dimensional scores showed no significant differences, indicating similar patient-reported baselines for physical and psychological well-being. In addition, our exclusion criteria removed patients with neurological/psychiatric disorders or long-term sedative use, helping mitigate differential psychological burden at baseline. We agree that adding validated screening for nutrition and sleep would strengthen future, larger trials, and we plan to incorporate these assessments.

Perioperative Analgesic Protocol

We appreciate the commentators' focus on the analgesic regimen and wish to clarify that our protocol was indeed multimodal. As detailed in our Methods, all patients received a foundation of non-opioid analgesia, including intraoperative NSAIDs (flurbiprofen axetil) and local anesthetic wound infiltration (ropivacaine), with tramadol reserved for rescue analgesia. We agree this does not constitute a fully scheduled, opioid-sparing ERAS pathway. However, this context enhances the external validity of our findings, as our protocol reflects a pragmatic, 'real-world' analgesic strategy common in many institutions. This is a pivotal point, as it establishes the efficacy of TEAS outside of a highly optimized ERAS setting. We strongly concur that the next crucial question is whether TEAS provides an additive or synergistic benefit within a fully implemented ERAS protocol. A future study using a 2 × 2 factorial design—crossing TEAS/Sham with an ERAS/conventional analgesia backbone—would be the ideal methodology to definitively answer this and assess for any interaction between the interventions.

Clinical Significance of Outcomes

We acknowledge that the 4.38-point mean difference in the global QoR-15 score on POD 1 did not meet the 6-point MCID threshold cited by the commentators.[2] However, this global score was underpinned by a compelling convergence of benefits across multiple patient-centered domains. The improvement was driven by statistically significant gains in the

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crucial dimensions of emotional state, physical comfort, and pain. This was mirrored by a reduction in postoperative pain scores that meets established MCIDs for acute pain.[3] Furthermore, TEAS had a substantial effect on PONV, nearly halving its incidence on POD 1 (20.8% vs 38.7%) and the need for rescue antiemetics over three days (20.8% vs 40.8%). The pattern of accelerated recovery is extended to objective function, with significant reductions in time to first flatus and first ambulation.

Rather than focusing on a debatable MCID for a single endpoint like time to first flatus—for which a universal standard in gynecologic laparoscopy is lacking—we believe a more holistic interpretation is warranted. The true clinical meaning is found in the consistency of the findings. The convergent evidence—spanning patient-reported well-being, validated pain reduction, a lower complication burden from PONV, and objective functional milestones—collectively constitutes a clinically meaningful benefit. This concordant improvement across multiple domains is a more robust and patient-relevant indicator of enhanced early recovery than any single metric.

Conclusion

In summary, we appreciate this opportunity for clarification. Our trial demonstrates that a brief TEAS intervention in the PACU provides tangible, early patient-centered benefits within a common multimodal analgesic framework. We wholeheartedly agree with Huang et al that the logical next step is to rigorously evaluate the additive value of TEAS within an opioid-sparing ERAS pathway, and we are actively designing such a trial. We thank them for their thoughtful critique, which advances this important dialogue.

Disclosure

The authors report no conflicts of interest in this communication.

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