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Author's Reply, regarding "Comparison of ArtiSential and Conventional Laparoscopic Instruments in Hysterectomy for Gynecologic Cancers: A Hybrid Observational Study on Surgical Outcomes, Pain Control, and Oncologic Safety"

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Conflict of Interest:

The authors declare no conflicts of interest related to this correspondence.

Dear Editor,

We thank Dr. Zhang and colleagues for their thoughtful comments on our recently published article. We are grateful for the opportunity to respond and appreciate their constructive feedback. Below we address their points in turn.

1. Stratification of hysterectomy types

We agree that including total, radical, and laparoscopy-assisted vaginal hysterectomies without stratification may introduce procedural heterogeneity. As acknowledged in our original manuscript, although the ArtiSential device may be used across various hysterectomy types, it is typically employed during specific procedural steps such as colpotomy and vault suturing. In our prospective ArtiSential cohort, these step-specific times were collected; however, such granular data were not available in the retrospective conventional laparoscopy group. Thus, we were limited to comparing total operative times. We fully agree that future prospective studies with matched surgical procedures and step-specific operative time data will provide more precise comparisons.

2. Surgeon variability and experience

In the ArtiSential group, two surgeons performed 44 cases (18 and 26 cases, respectively). Both had performed more than 15 ArtiSential surgeries before participating in this study and had completed pre-study box training, consistent with the published learning curve¹. As stated in our article, all participating surgeons were experienced gynecologic oncologists with over 15 years of laparoscopic surgical experience, and each performed over 200 hysterectomies annually. The same two surgeons also contributed to the conventional laparoscopy group, along with two additional surgeons of similar experience and volume. Although we recognize that differences in individual technique and case complexity could affect operative time, we believe this reflects real-world surgical practice. In multicenter observational studies, such heterogeneity may enhance rather than diminish the generalizability of findings.

3. Postoperative pain assessment

We appreciate the authors' observation regarding pain assessment. In our study setting, all patients received standardized postoperative analgesia per institutional ERAS (enhanced recovery after surgery) protocols: preoperative NSAIDs/acetaminophen, intravenous PCA (patient-controlled analgesia) with fentanyl in the recovery room, and scheduled NSAIDs/acetaminophen thereafter. Postoperative pain was assessed upon return to the ward using the NRS scale. We evaluated the incidence of moderate-to-severe pain despite these uniform measures. However, we acknowledge that our analysis did not include additional opioid consumption beyond the ERAS protocol, and that a single timepoint assessment may not capture dynamic pain patterns. Future studies will incorporate longitudinal pain evaluations and analgesic use data to better characterize postoperative discomfort.

Once again, we appreciate the valuable feedback from Dr. Zhang and colleagues. We hope this response provides clarification and further context to our study, and we welcome continued dialogue on this evolving area of surgical innovation.

Sincerely,

Yoo-Young Lee, MD, PhD (on behalf of all authors)

1. Kim S, Lee J, Oh HK, et al. Short-term outcomes and the learning curve for laparoscopic right hemicolectomy using the ArtiSential: a multicenter pooled analysis. *Surg Endosc*. Mar 20 2025;doi:10.1007/s00464-025-11670-z