Intraoperative Analgesic Regimen and Cholecystectomy: A Closer Look

Akira Umemura^{a,b} Takayuki Suto^b Seika Nakamura^b Hisataka Fujiwara^b
Fumitaka Endo^b Hiroyuki Nitta^a Takeshi Takahara^a Akira Sasaki^a

^aDepartment of Surgery, Iwate Medical University, Morioka, Japan; ^bDepartment of Surgery, Morioka Municipal Hospital, Morioka, Japan

Dear Editor,

We appreciate the interest shown by Drs. Kendall MC and Castro-Alves LJ in our recent article “Comparison of Single-Incision Laparoscopic Cholecystectomy versus Needleoscopic Cholecystectomy: A Single institutional Randomized Clinical Trial” published in *Digestive Surgery* [1]. They have raised three questions regarding the intraoperative analgesic regimen, type I error setting in statistical analyses, and patient-centered outcomes.

First, with regard to the standardized intraoperative analgesic regimen, all the enrolled patients underwent continuous intravenous infusion of remifentanyl during surgery and 50 mg of flubiprofen axetil was administrated at the end of surgery. We did not employ the ultrasound-guided

nerve block [2] due to the long occupation of the operation room, and we did not employ any postoperative opioid administrations because overall analgesic use occurred only once during the hospital stay in the needleoscopic cholecystectomy group. However, as we mentioned in the article, infiltration of the umbilical site with lidocaine or ropivacaine may reduce the postoperative wound pain in the single-incision laparoscopic cholecystectomy group owing to a larger incision compared to needleoscopic cholecystectomy [3].

With regard to the query raised about the type I error setting in statistical analyses, we wish to state that type I error is called α error. We determined an α level of 0.05 ahead of time; hence, type I error was

considered in all calculations and statistical analyses.

Finally, patient-centered outcomes usually evaluate the maintenance or improvement of the quality of life [4]. As they say, less pain or less incision is not necessarily connected to patients' quality of life and personal satisfaction; hence, further studies about patient-centered outcomes are warranted to clarify the true meaning of minimally invasive surgery.

Disclosure Statement

A.U., T.S., S.N., H.F., H.N., T.T., and A.S.: have no conflicts of interest or financial ties to disclose.

References

- 1 Umemura A, Suto T, Nakamura S, Fujiwara H, Endo F, Nitta H, Takahara T, Sasaki A: Comparison of single-incision laparoscopic cholecystectomy versus needleoscopic cholecystectomy: a single institutional randomized clinical trial. *Dig Surg* 2018, Epub ahead of print.
- 2 Oh TK, Yim J, Kim J, Eom W, Lee SA, Park SC, Oh JH, Park JW, Park B, Kim DH: Effects of preoperative ultrasound-guided transversus abdominis plane block on pain after laparoscopic surgery for colorectal cancer: a double-blind randomized controlled trial. *Surg Endosc* 2017;31:127–134.
- 3 Philipp SR, Miedema BW, Thaler K: Single-incision laparoscopic cholecystectomy using conventional instruments: early experience in comparison with the gold standard. *J Am Coll Surg* 2009;209:632–637.
- 4 Zapf M, Denham W, Barrera E, Butt Z, Carbray J, Wang C, Linn J, Ujiki M: Patient-centered outcomes after laparoscopic cholecystectomy. *Surg Endosc* 2013;27:4491–4498.