

Comments on “Regional Analgesia for Laparoscopic Cholecystectomy Using Ultrasound-guided Quadratus Lumborum Block or Erector Spinae Block: A Randomized Controlled Trial”

TO THE EDITOR:

We have read with great interest the article published in a recent issue of *Pain Physician* written by Ahmed Hassanein et al (1). They performed a randomized, controlled, double-blind study and reported that both ultrasound-guided erector spinae plane (ESP) blocks and quadratus lumborum (QL) blocks are effective techniques for reducing postoperative pain after laparoscopic cholecystectomy. We appreciate their inspiring work and respect their focus on postoperative pain management, especially in laparoscopic cholecystectomy. However, due to the lack of data on basic pain scores, intraoperative opioid consumption, and intraoperative fluid infusion, we still have concerns about the strength of the conclusion.

First, the authors only recorded pain intensity measured by the visual analog scale (VAS) at one, 2, 4, 6, 8, 12, 16, 20, and 24 hours postoperatively at rest and cough, but the preoperative VAS scores of the 3 groups were unknown. Laparoscopic cholecystectomy is a minimally invasive procedure that causes pain originating from the parietal and visceral peritoneum. It has been reported that suboptimal pain reduction in patients with gallstones and abdominal pain was noted with both usual care and following a restrictive strategy for selection for cholecystectomy (2,3). Basal pain threshold of enrolled patients was critical in that study.

Second, in the study, if the patient's hemodynamics increased by 20% from the basal values, 0.5 µg/kg of fentanyl was supplemented. Numerous studies have

found that peritoneal insufflation resulted in a significant reduction of cardiac output and increases in mean arterial pressure and systemic and pulmonary vascular resistances (4-6). And total fentanyl requirements were recorded. Regrettably, the intraoperative dose of fentanyl was unknown. This leaves it unclear whether intraoperative changes in patient hemodynamics have an effect on total fentanyl requirements and the postoperative VAS score.

Third, postoperative changes in the heart rate and mean arterial pressure were recorded in the studied groups. However, changes in the volume of intraoperative fluid infusion were not observed, which would have an impact on patients' heart rate and mean arterial pressure. Clinical studies found that patients undergoing laparoscopic cholecystectomy with restrictive fluid therapy may suffer more severe postoperative pain and stress response than those receiving liberal fluid therapy (7,8). Therefore, during the course of this study, the patient's perioperative administration of fluid infusion should be closely monitored, and liberal fluid therapy is recommended.

At the end, the description of the groups in the study patients flow chart was incorrect.

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