

A novel opioid-sparing method for post-laparotomy pain management in gynaecologic oncology patients: Correspondence

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Dear Editor,

We refer to the article "A novel opioid-sparing method for post-laparotomy pain management in gynaecologic oncology patients" published in a recent issue of the *Annals*.¹

The authors conducted a retrospective review on women undergoing gynaecologic oncologic surgeries via midline laparotomy. Two groups were compared: 119 patients with only intravenous patient-controlled analgesia (IV PCA) and 133 patients receiving preperitoneal wound catheters (PPWC) with or without IV PCA. The percentage of patients on PPWC who did not receive PCA was reported as 17.3%.

We wonder if the authors could have excluded the 17.3% of patients on PPWC who did not receive IV PCA, so that the comparison between the 2 groups could be less complicated, i.e. only IV PCA versus IV PCA and PPWC. The inclusion of patients on PPWC who did not receive IV PCA potentially introduced bias and confounding. Furthermore, there was no standardisation in the infusion protocol of PPWC administration as patients received continuous infusion at 5, 7 or 12 mL/hour based on clinical needs. This further increased the risk of bias and heterogeneity in the study results.

In the article, the authors reported the following: (1) opioid consumption among IV PCA users in both groups were comparable in terms of milligrams per kilogram of body weight per day after surgery for the first 72 hours postoperatively; (2) the pain scores at rest and during movement were similar between the 2 groups; (3) there were no significant differences in time to ambulation and bowel function between the 2 groups; and (4) opioid-related side effects were similar between the 2 groups. These findings suggest that the addition of PPWC to IV PCA did not make any difference to the measured endpoints. In addition, it was reported that PPWC patients had longer times to oral intake and hospital stay. This questions the overall efficacy of the PPWC. Despite these results, the authors concluded that PPWC is a novel and effective method for postoperative pain relief.

Anatomically, the innervation of the anterior abdominal wall arises from the anterior rami of spinal nerves T7 to L1. The branches from the anterior rami include the intercostal nerves (T7 to T11), the subcostal nerve (T12), and the iliohypogastric/ilioinguinal nerves (L1). These nerves run in the plane between the internal oblique and the transversus abdominis muscles. The nerves continue anteriorly from the transversus plane to pierce the rectus sheath and end as anterior cutaneous nerves. Local anaesthetic drugs deposited within the posterior rectus sheath bilaterally can thus provide analgesia over the middle anterior wall from the xiphoid process to the symphysis pubis.²

Based on this anatomy, local anaesthetic drugs deposited in the posterior rectus sheath will be useful for surgery with midline abdominal incisions. To our knowledge, the use of wound catheters for patients undergoing gynaecology oncologic surgery has been reported more than a decade ago.³ There are also numerous articles on the effectiveness of local anaesthetic deposition in the rectus sheath to help with postoperative pain control in both open and laparoscopic surgeries.⁴⁻¹⁰

In the article, the authors placed their wound catheter preperitoneally rather than in the rectus sheath. We wonder if this has contributed to the absence of significant differences between the 2 studied groups for the measured outcomes.

Ethics statement

Not applicable, as no study participants were recruited.

Declaration

The authors declare there are no affiliations with or involvement in any organisation or entity with any financial interest in the subject matter or materials discussed in this manuscript.

Keywords: anaesthesiology, gynaecology oncology, laparotomy, obstetrics and gynaecology, postoperative pain

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