

البحث الثامن

عنوان البحث باللغة الإنجليزية:

The effect of erector spinae plane block on fentanyl consumption during open abdominal hysterectomy: A randomized controlled study

نوع البحث:

بحث مشترك منشور و لم يسبق تقييمه.

المشرفين على البحث حسب الترتيب:

د. محمد أحمد حامد, د. ماجد لبيب بولس, د. محمد عبد المنعم, د. رنا أحمد عبدالغفار.

مكان و تاريخ النشر BMC Anesthesiology. June-2023- ISSN:1471-2253

ملخص البحث الثامن باللغة الإنجليزية:

Background: Perioperative analgesia is very important during an abdominal hysterectomy. Determining the impact of the erector spinae plane block (ESPB) on patients undergoing an open abdominal hysterectomy while under general anesthesia was our aim.

Methods: In order to create equal groups, 100 patients who underwent elective open abdominal hysterectomies under general anesthesia were enlisted. The preoperative bilateral ESPB with 20 ml of bupivacaine 0.25% was administered to the ESPB group (n = 50). The same procedure was performed on the control group (n = 50), but they received a 20-ml saline injection instead. The primary outcome is the total amount of fentanyl consumed during surgery.

Results: We found that the mean (SD) intraoperative fentanyl consumption was significantly lower in the ESPB group than in the control group [82.9 (27.4) μ g vs. 148.5 (44.8) μ g, with a 95% CI = -80.3 to -50.8; p 0.001). Likewise, mean (SD) postoperative fentanyl consumption was significantly lower in the ESPB group than in the control group [442.4 (17.8) μ g vs. 477.9 (10.4) μ g], with a 95% CI = -41.3 to -29.7; p 0.001). On the other hand, there is no statistically significant difference between the two study groups regarding sevoflurane consumption [89.2 (19.5) ml vs. 92.4 (15.3) ml, with a 95% CI = -10.1 to 3.8; p 0.4. We documented that during the post-operative period (0–24 h), VAS scores at rest were, on average, 1.03 units lower in the ESPB group (estimate = -1.03, 95% CI = -1.16(-0.86), t = -14.9, p-value 0.001), and VAS scores during cough were, on average, 1.07 units lower in the ESPB group (estimate = -1.07, 95% CI = -1.21(-0.93), t = -14.8, p-value 0.001).



Conclusion: Bilateral ESPB can be utilized as an adjuvant method to reduce intraoperative fentanyl consumption and enhance postoperative pain control in patients undergoing open total abdominal hysterectomy under general anesthesia. It is effective, secure, and little obtrusive.