

Erector spinae plane block for postoperative analgesia in patients undergoing total abdominal hysterectomy: a randomized controlled study

original study

Background: Abdominal hysterectomy is associated with marked postoperative pain and morbidity, but effective postoperative analgesia provides early recovery and ambulation.

Aim: We intended to assess the efficacy of bilateral erector spinae plane block (ESPB) on postoperative analgesia in females undergoing abdominal hysterectomy under general anesthesia.

Settings and Design: The design was a prospective, randomized, controlled, single-blind clinical study.

Patients and Methods: Sixty patients with American Society of Anesthesiologists (ASA) physical status classes I to III were scheduled for elective abdominal hysterectomy under general anesthesia, patients were randomly allocated into two equal groups. ESPB patients received ultrasound-guided ESPB at T9 vertebrae level with 20 ml bupivacaine 0.5%. Control group patients did not receive a block. Total fentanyl consumption in the first 24 h and visual analogue scale (VAS) score for pain were evaluated postoperatively. Unpaired Student's t-tests, chi-square tests, and Z tests were used to compare groups.

Results: No significant differences were recorded between the groups regarding age, weight, ASA physical status, or surgery duration, Total fentanyl consumption in the first 24 h was significantly higher in the control group than the ESPB group ($P=0.003$; 485 ± 20.39 mcg vs 445 ± 67.49 mcg, respectively), VAS for pain was significantly higher in the control group for the first 12 h postoperatively.

Conclusions: Bilateral ESPB provided effective postoperative analgesia and markedly decreased postoperative fentanyl consumption in patients undergoing an abdominal hysterectomy.

Keywords: erector spinae plane block, fentanyl consumption, total abdominal hysterectomy, postoperative analgesia